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The psychological adaptation of psychologists in clinical training: The role of cognition, coping and social support.

Willem Kuyken

Submitted in partial fulfilment of the requirements for the degree of

Doctorate of Clinical Psychology

Clinical Psychology, Salomons Centre

Accredited Institution of the Open University.

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Signed *William Hughes* (candidate)
 Date *22 September 1997*

STATEMENT 1

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PREFACE

I can only agree with Carl Rogers when he remarked that research often serves a profoundly personal aim (Rogers, 1961). My research has been about me, a trainee clinical psychologist, looking at the psychological adaptation of trainee clinical psychologists. This is therefore a personal document, written in part for myself, driven by explicit or implicit motivations, to clarify an issue which was troubling me. I would like to preface the work with something about this and how I chose to manage this in the work.

I felt that I was faced with at least two issues. First, I had an opportunity to improve this study from my perspective as a trainee clinical psychologist. Second, I was aware that my subjectivity could cloud scientific objectivity. Accepting these two issues, I decided to use a quantitative research methodology, thinking that this would be less susceptible to subjective biases. However, I wanted to enrich and elaborate the work through (a) my perspective as a trainee clinical psychologist and (b) a research diary chronicling my relationship to this research. This seemed to me a workable way of using my subjectivity but ensuring objectivity as far as possible.

I would like to thank especially the following people who have shaped and supported my professional and personal development through this work: Tony Lavender, Emmanuelle Peters and Mick Power. I am grateful to Gillian Bowden, Margie Callanan, Steve Joseph and Sophia Rabe-Hesketh for their comments and support in the planning, carrying out, analysis and writing up of this project, to Jane Henry for the data entry and to Halley Cohen for proofreading. I acknowledge the comments of three reviewers of a manuscript based on a subset of this work submitted for publication. Finally, I am indebted to the psychologists in clinical training who chose to share their experience of clinical psychology training and give of their already pressured time.

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Abstract

Objectives: The current study sought to profile the psychological adaptation of psychologists in clinical training and examine the extent to which appraisal, coping and social support mediate and/or moderate psychological adaptation.

Design: A mixed within-persons and between-persons design was used.

Methods: A sample of 183 psychologists in clinical training (60.2 per cent response rate) from 15 British clinical psychology training courses participated at time one, 167 of whom participated at time two one year later (91.3 per cent of the time one sample). They completed measures of cognition, coping and social support. A multidimensional assessment of psychological adaptation included measures of perceived stress, anxiety and depression.

Results: Trainee clinical psychologists reported high levels of stress, but as a group did not experience extensive problems of psychological adaptation in terms of anxiety, depression, self-esteem problems, marital problems, family problems, external stressors, interpersonal conflict, work adjustment or substance abuse. However, a significant subgroup reported self-esteem problems, work adjustment problems, depression and anxiety. Gender, age, year of training and training course were related to psychological adaptation. Appraisal processes, coping and social support predicted a significant amount of variation in psychological adaptation. Appraisals of threat, avoidance coping, emotional support from clinical supervisors, emotional support from courses and emotional support from a confidante at home all predicted the variance in psychological adaptation over time.

Conclusions and implications: The findings were discussed in terms of a cognitive model of stress and adaptation. Implications for trainee clinical psychologists, training courses and the clinical psychology profession were considered.

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To Halley

INTRODUCTION

The demands and challenges of training as a clinical psychologist create a symphony of experiences, that demand a psychological response. This can be vitalising, leading to development and learning. Several theoretical accounts of how people adapt psychologically to life's challenges and difficulties have been formulated and subjected to research across a broad range of populations and circumstances. Psychologists in clinical training are exposed to a unique mix of personal and professional stressors, both in their internal and external worlds, yet to date the psychological adaptation of this population has not been studied in any theoretical framework. This research was concerned with applying existing theoretical understanding of psychological adaptation to stress to psychologists in clinical training.

The introduction draws together relatively diverse literatures on (1) stress, appraisal, and coping, (2) social support, (3) occupational stress and (4) the psychological adaptation of mental health professionals, to set a theoretical and empirical context for advancing understanding of the role of appraisal, coping and social support in the psychological adaptation of trainee clinical psychologists. Preliminary research with this population has suggested important lines of enquiry. The transactional theory of stress, appraisal and coping (Lazarus and Folkman, 1984) was used as a theoretical framework from which research questions and hypotheses concerning the psychological adaptation of trainee clinical psychologists could be derived. The introduction closes with an overview of the main conceptual and methodological issues, and how this work acknowledged or addressed these.

Towards a theory of stress, appraisal and coping

Before reviewing the contemporary theory and empirical work in this area, defining the terms is apt. Definition of terms demands a broad conceptual framework in which to anchor the terms. Based on the empirical evidence, an assumption was made that a modest but significant relationship exists between stressors and psychological adaptation (See Lazarus, 1993; Thoits, 1995). Furthermore it was assumed that this relationship is mediated and/or moderated¹ to some

¹ The definitions of mediating and moderating relationships proposed by Baron and Kenny (1986) are adopted in this work. They are defined and discussed in the later section concerned with conceptual and methodological issues.

degree by appraisal processes, coping and social support (See Lazarus, 1993; Thoits, 1995). Stressors are defined as internal or external demands that require the person to readjust his or her usual responses. Stressors can be categorised as (1) daily hassles (e.g. traffic congestion), (2) chronic strains (e.g. chronic illnesses) and (3) life events and traumas (e.g. the death of a loved one) (Aldwin, 1994; Thoits, 1995). Stressors are distinct from stress, in that stress is a consequence of a person's exposure to stressors. Stress is defined as *'a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being'* (Lazarus and Folkman, 1984; p.19).

Appraisal can be defined as a person's perception, understanding and interpretation of a stressor. It is the process of creating a subjective experience from an event or anticipated event. Coping can be defined as *'the process through which the individual manages the demands of the person-environment relationship that are appraised as stressful and the emotions they generate'* (Lazarus and Folkman, 1984, p.19). Thus, coping can be said to have three facets, understanding the stressor, attempting to change the stressor itself and modifying the feelings produced by the stressor.

A serious limitation in our understanding of the 'stressor - psychological adaptation' relationship has been the failure to reach a consensual definition of psychological adaptation (Lazarus, 1993). Lazarus and Folkman (1984) suggested two main dimensions of psychological adaptation: (1) morale (*'how people feel about themselves and their conditions of life'* p.194) and (2) social functioning (roles and relationships and satisfaction with these). Work on quality of life assessment suggests that using a multidimensional profile of psychological adaptation has several advantages (WHOQOL Group, 1995). A profile can tap into both positive (e.g. positive feelings, self-esteem) and negative dimensions (e.g. anxiety, fatigue) and provide a Gestalt missed by more limited measures of psychological distress. Building on these definitions, psychological adaptation is defined as a person's experience of his or her mental and emotional state and social and occupational relationships and roles, and in relation to his or her goals, expectations, standards and concerns. It is a subjective, broad ranging, multidimensional, affective, cognitive and behavioural construct comprising both positive facets (e.g. positive feelings) and negative facets (e.g. anxiety).

One area of theoretical and empirical enquiry that can provide a helpful framework to understand and study psychological adaptation is the work of Lazarus and colleagues on stress, appraisal and coping: sometimes called the transactional theory of coping (See Lazarus and Folkman, 1984; Lazarus, 1993). Their theory proposes that there are two processes in coping, appraisal and coping *per se*. Appraisal involves first assessing the stressful situation (e.g. the extent to which it is threatening or controllable) and second using the personal and coping resources available to deal with the stress (e.g. social support, financial resources). Thus, a person who perceives a situation as threatening, and his or her own coping resources as inadequate, may consequently experience considerable stress (Lazarus and Folkman, 1984). It is argued that the person's appraisal determines which coping strategies are employed (e.g. planful problem solving, avoidance or positive reappraisal). Appropriate appraisals, it is suggested, lead to appropriate coping and better psychological adaptation.

Critique of the transactional theory of coping

Critique 1. Mapping the territory: conceptualising coping.

The conceptual detail of the nature and number of dimensions of coping in transactional theory have not been clearly articulated. Other attempts include:

- ▶ Approach and avoidance coping. This dimension refers to cognitive and behavioural efforts that are oriented either towards or away from both the stressor and the effects of the stressor (Roth and Cohen, 1986);
- ▶ Problem-focused and emotion-focused coping (Lazarus and Folkman, 1984);
- ▶ Active cognitive coping, active behavioural coping and avoidance coping (Billings and Moos, 1981);
- ▶ Task-focused coping, emotion-focused coping and avoidance coping (Endler and Parker, 1990). Task-focused coping refers to coping strategies directed at managing the stressor and its effects.

There are areas of overlap in these taxonomies. For example, Billings and Moos' (1981)

active cognitive coping is similar to the positive components of Lazarus and Folkman's (1984) emotion-focused coping, and overlaps with the approach coping dimension. More often than not, however, categorizations arise from the theoretical orientation of the author, rather than from compelling empirical reasoning. Similarly named measures often show low inter-correlations and measures based on these taxonomies have either not been developed or have not demonstrated high construct validity. For these reasons there has been much interest in delineating a more specific typology.

Tobin, Holroyd, Reynolds *et al.* (1989) attempted to integrate the discrete ways of coping into an overall structure of coping. They collected data from more than 500 people using the Folkman and Lazarus (1980) Ways of Coping Checklist. Hierarchical factor analysis suggested three levels comprising eight primary factors, four secondary factors, and two tertiary factors. The two overarching factors were '*coping activities that engage the individual with, and coping activities that disengage the individual from the stressful situation*' (Tobin *et al.* 1989, p.355). Tobin *et al.* (1989) argue that the inter-correlations of primary scales found in other studies support this distinction and equate this dimension to approach-avoidance as discussed by others (See Roth and Cohen, 1986). The study by Tobin *et al.* (1989) is problematic, however. The appropriateness of using hierarchical factor analysis on data collected with a single measure of coping as the principal method in scale development has been questioned (Comrey, 1988). Nevertheless, the work suggests a possible structure for coping (Figure 1).

Figure 1. A taxonomy of coping.

DIRECTION OF COPING

Approach

Avoidance

FOCUS OF COPING

Problem / Emotion

Problem / Emotion

COPING STRATEGY

e.g. problem solving / physical exercise

e.g. denial / substance abuse

This structure enables distinctions between the direction of coping (i.e. to approach or avoid the stressor and its affective consequences), the focus of the coping (i.e. to orient cognitively and behaviourally towards the problem or its affective consequences) and the specific strategies employed (i.e. discrete coping activities) (Joseph, submitted). For example, using physical exercise to alleviate tension directs coping towards the affective consequences of the stressors (approach coping), while the focus is on the tension (emotion-focused coping). The taxonomy makes a tripartite distinction that does not necessarily mesh with alternate taxonomies or measures of coping. Take for example the 'self-controlling' scale from the Ways of Coping Questionnaire (Folkman and Lazarus, 1988). This includes items assessing strategies that are approach problem-focused (I thought about how a person I admire would handle the situation and used that as a model) and avoidance emotion-focused (I tried to keep my feelings to myself). Whilst this taxonomy is subject to empirical enquiry, it offers a provisional way of understanding coping.

Critique 2. Where is the person in the transactional theory of coping?

A principal criticism of the transactional theory has been that it focuses on coping processes, without considering the person's personality. Interestingly, Lazarus' (1966) work on coping arose partly in reaction to psychoanalytic approaches to coping, such as Anna Freud's work on defence (1966). The wheel has come full circle, with the explicit proposition that personality might underlie coping. The theoretically and empirically derived five factor model of personality suggests that five dimensions subsume most measurable aspects of personality: neuroticism, extraversion, openness to experience, agreeableness and conscientiousness (McCrae, 1992). The neuroticism dimension overlaps considerably with the dimension 'negative affectivity' (a proclivity to experience negative moods marked by anxiety, depression and hostility) (Watson and Pennebaker, 1989). As Costa, Somerfield and McCrae (1996) argue, these five dimensions of personality might influence how a person appraises and copes with stressors. For example, openness to experience might help a person to adapt to a new work environment by appraising and coping with its demands in alternative and novel ways. Evidence of a relationship between the five personality dimensions and coping is sparse and inconclusive, particularly in relation to openness to experience, agreeableness and conscientiousness. However, several studies have

shown associations between neuroticism and coping, in particular a tendency to use more avoidance and less approach coping (Endler and Parker, 1990; Smith, Pope, Rhodewalt *et al.*, 1989). There is some evidence that extraversion may be linked to appraisals of control and challenge (rather than threat) and approach coping, particularly seeking social support (Amirkhan, Risinger and Swickert, 1995; Gallagher, 1990). On reviewing this literature, Taylor and Cooper (1989) argued for a 'stress-prone personality.'

Other theorists argue that people have a repertoire of ways of responding to and coping with stressors that they use with a measurable degree of consistency across situations and time. Examples of coping style approaches to coping include self-efficacy (Bandura, 1977; 1982), optimism (Scheier, Weintraub and Carver, 1986), hardiness (Kobasa, 1979) and the *ability* to build and maintain social resources (Holahan and Moos, 1987). Studies have shown a degree of consistency over time in coping with similar stressors (e.g. Compas, Forsythe and Wagner, 1988). Furthermore, coping styles have been linked to psychological adaptation. For example Kobasa, Maddi and Kahn (1982) demonstrated in a prospective study that 'hardiness' attenuated the effects of stress on physical illness. Hardiness in stressful encounters consists of a constellation of commitment (involvement rather than alienation), control (feeling effective rather than helpless) and challenge (perceiving problems as an opportunity for growth and development rather than threatening). The validity of these findings is threatened by the study's homogeneous and unrepresentative sample (largely middle-aged, white and exclusively male executives) and high attrition rates. Further evidence comes from a longitudinal study of Israeli army recruits, where commitment and control predicted psychological adaptation through appraisal and coping (Florian, Mikulincer and Taubman, 1995).

How can transactional and personality approaches to coping be reconciled? Holahan, Moos and Schaefer (1996) have suggested that they have *complementary* strengths. Krohne (1996) suggests that the structure and process of coping represent different conceptual levels. Inferred structural mechanisms (personality and coping styles) have some consistency, while the stream of person-situation interactions determines observed coping processes. Krohne further argues that these mechanisms must be studied through different methods. Fine-grained analysis of a stream of events provides evidence of cross-temporal and cross-situational consistency that

enables an inductively derived understanding. However, it is only through deductively applying theory to the analysis that the structure of personality or coping styles can be understood. To summarise, while the evidence for a strong personality-coping link is not conclusive, enough evidence warrants serious consideration of personality variables in coping research, possibly as a structural framework for understanding transactional processes.

Critique 3. What is the empirical evidence for the transactional theory of coping?

Lazarus and Folkman (1984) propose that their theory is transactional, yet few studies have examined stressors, appraisal and coping as a transaction. Although there is support for parts of the theory, this does not necessarily add up to empirical support for the whole theory. Nonetheless, there is some empirical support. The way in which stressful events are appraised and the available coping resources have each been shown to significantly mediate and/or moderate the effects of stressors on longer-term adaptation, in both cross-sectional and longitudinal studies (Bolger, 1990; Folkman, Lazarus, Dunkel-Schetter *et al.*, 1986; Folkman, Lazarus, Gruen *et al.*, 1986; Lazarus and Folkman, 1987; Scheier *et al.*, 1986; Valentiner, Holahan and Moos, 1994). The perceived controllability of the stressor appears crucial (Folkman, 1984). An impressive range of studies has shown that a sense of control mediates the 'stressor - psychological adaptation relationship' (See Thoits, 1995). The theory predicts that appraisals of control lead to more effective coping, and there is evidence for this hypothesis (Folkman and Lazarus, 1980; Scheier *et al.*, 1986; Lazarus and Folkman, 1987). However, not all studies have produced this effect (See Suls and Fletcher, 1985). This has led to the suggestion that appraisals of control must match the reality of how controllable the stressor is, sometimes called the 'goodness-of-fit model' (Aldwin, 1994). Within this model, the appropriateness of approach or avoidance coping will depend on the actual controllability of the stressor.

Roth and Cohen (1986) have argued that avoidance coping can be a useful short-term coping strategy in reducing stress and increasing hope and courage, particularly with short-term and unchangeable stressors. However, in the longer term it may interfere with appropriate action and inhibit emotional processing, and is therefore generally associated with poorer psychological adaptation. In general, people who rely more on approach coping report better psychological

adaptation. In contrast, people who cope with stressors through avoidance coping, beyond the initial crisis, tend to report poorer psychological adaptation. There is evidence to support this broad, but qualified generalization with different populations, different stressors and different dimensions of psychological adaptation in both cross-sectional and longitudinal designs (Suls and Fletcher, 1985). However, as Aldwin (1994) has cautioned, coping is contextual, and people therefore use approach and avoidance coping at different times in relation to different aspects of the stressful episode as their internal and external context changes.

Towards an understanding of social support

Social support can be defined as the functions performed for a person by a significant other(s), such as family member, friend or colleague (Thoits, 1995). Power, Champion, and Aris (1992) have suggested and shown a useful distinction between practical social support (e.g. helping a person prepare for a difficult interview or meeting) and emotional social support (e.g. comforting a person who has had bad news).

Reviews of the literature on social support suggest several conclusions (See Cohen and Wills, 1985; Thoits, 1995). First, social integration and networks *per se* are related to psychological adaptation, but do not necessarily directly intervene between stressors and psychological adaptation. Second, it is the perception of support, rather than actual support that is important in mediating and/or moderating the effects of stressors on psychological adaptation. Third, the simplest and most powerful indicator of social support is the presence or absence of an intimate and confiding relationship. Having such a relationship significantly reduces the effects of stressors on psychological adaptation. For example, in people with cancer, more support from a spouse predicted more adaptive behaviours and better psychological adaptation (Dakof and Taylor, 1990). However, some studies suggest exceptions and caveats to these conclusions (See Coyne and Downey, 1991). Furthermore, the processes underlying the relationships between stressors, social support and psychological adaptation are not clearly understood (Thoits, 1995).

One possible process underlying social support, is appraisal and coping. Pierce, Sarason and Sarason (1996) argue that social support promotes accurate and positive appraisals of self and

others, enabling more effective and realistic coping strategies. In an experimentally manipulated task, people high in social support experienced less distracting thoughts and correctly solved more problems than those low in social support (Sarason and Sarason, 1986). In a series of naturalistic longitudinal studies of two community samples, people with more social support were found to rely more on approach coping and less on avoidance coping, which mediated better psychological adaptation over time (Holahan and Moos, 1987; Holahan and Moos, 1991). In a longitudinal study of youths, it was found that with controllable events, support predicted adaptive coping, and coping in turn predicted adjustment (Valentiner *et al.*, 1994).

To summarise, perceived social support appears to moderate the effects of stressors on psychological adaptation. There is some evidence that this process may operate, in part, through appraisals and coping. Overall, however, the evidence is mixed and the way in which social support operates is unclear.

Occupational stress among mental health professionals: applying our understanding of stress, appraisal, coping and social support

A large body of psychological research into occupational stress has applied knowledge about the 'stressor - psychological adaptation' relationship to work settings. Thus, occupational stressors can be defined as internal or external demands arising in the work setting that require the person to adapt. Occupational stress can be defined as the relationship between the person and the work environment appraised by the person as taxing or exceeding his or her resources and endangering his or her psychological adaptation. However, important additional considerations arise in considering occupational stressors. Several authors have identified particular stressors in the workplace, including role ambiguity, role conflict, interpersonal conflict, blocks to professional development, organizational structure and climate (e.g. poor communication), the home - work interface (e.g. balancing home / work demands) and work overload (Cherniss, 1980; Cooper and Marshall, 1978; Terry, Nielson and Perchard, 1993). As for psychological adaptation, authors have stressed the dimensions of emotional exhaustion, depersonalisation, personal accomplishment (Maslach, 1982), detachment, alienation (Cherniss, 1980) and job satisfaction (Parkes, 1991).

In their day-to-day work clinical psychologists' come into direct contact with other people's distress and the individual, familial and environmental conflicts and meanings that underlie this distress. In any week clinical psychologists might span the roles of individual, family and group therapist, researcher, advocate, teacher, manager, supervisor and team member. Each of these roles is challenging both personally and professionally; it is easy to understand how clinical psychologists might experience difficulties adapting to these stressors. Although there have been several rich autobiographical accounts of mental health professionals in distress (e.g. Rippere and Williams, 1985; Chadwick, 1993), the '*existing data on the prevalence of impairment in psychology are sparse and imprecise*' (Sherman, 1996, p.302). As Sherman (1996) has argued, an understanding of the psychological adaptation of psychologists is important for several reasons. First, psychologists and psychiatrists have used their personal experiences to inform their clinical models of work (Cohen, 1996; Epstein, 1995; Frankl, 1963; Freud, 1964; Rogers, 1961). Second, psychologists experiencing significant personal distress may find that their work is adversely affected (Garfield and Bergin, 1971; Guy, Poelstra and Stark, 1989). Third, an understanding of the difficulties that psychologists experience enables the systems in which they work to adapt themselves to promote optimal working environments (Lamb, Cochran and Jackson, 1991; Schwebel, Skorina and Schoener, 1994). Finally, an understanding of the psychological adaptation of psychologists and response to their identified needs is likely to shape the profession as a whole in a positive way (Sherman, 1996).

While by no means conclusive, a theme emerging from the literature is that significant numbers of mental health professionals experience significant mental health problems (Sherman, 1996). For example, in one study of psychiatrists in their early years of practice, over half reported moderate to incapacitating depression and anxiety (Looney, Harding, Blotcky *et al.*, 1980). The range of problems reported among mental health professionals has included depression, anxiety, somatic problems, relationship problems, substance abuse, suicidal thoughts and attempts, job stress, marital problems and financial problems (Cushway, Tyler and Nolan, 1996; Guy *et al.*, 1989; Pope and Tabachnick, 1994; Prochaska and Norcross, 1983; Thoreson, Miller and Krauskopf, 1989). Prevalence estimates have varied considerably, with some studies reporting high levels of psychological distress (e.g. Norcross and Prochaska, 1986) and others reporting comparatively low prevalence rates of psychological distress (e.g. Thoreson *et al.*, 1989).

At least, two studies have looked specifically at psychologists in clinical training (Cushway, 1992; Lamb, Presser, Pfof *et al.*, 1987). Cushway (1992), using a questionnaire measure of 'psychiatric caseness' (General Health Questionnaire, Goldberg, 1978), found high levels of psychological distress among British trainee clinical psychologists (59 per cent). Rates of distress were higher in the second and third year of training than in the first year of training. Neither study considered the influence of the training programme or trainees' clinical placement on the psychological adaptation of trainee clinical psychologists. The high rates of distress found in these studies might be explained by the particular demands and experiences of training as a clinical psychologist. Psychologists in training experience many life events (e.g. moving house, examinations), are often required to travel long distances, have academic workloads in addition to their clinical work, sometimes have to manage difficulties in supervision, may experience financial strains and are required to begin and end clinical placements regularly throughout training. These stressors can place demands on relationships and responsibilities both at work and home. Moreover, training can involve learning many and diverse ways of working (behavioural, cognitive, psychodynamic and systemic work), and learning a range of roles (e.g. therapist, researcher, team member). Furthermore, the psychologist in training is continually being evaluated, which can lead to a 'crisis of confidence' (Cherniss, 1980) and a sense of always working on the edge of one's competence².

Cherniss (1980) has developed a theory of occupational stress, in which an interaction of the work setting and person creates possible sources of stress (e.g. doubts about competence, client problems, bureaucratic interference) that can lead to poor psychological adaptation and attitude changes (e.g. work goals or idealism). There is some support for the theory from cross-sectional (Burke and Greenglass, 1989) and longitudinal studies (Burke and Greenglass, 1995), although these studies were dogged by problems of high attrition rates and difficulties operationalising some of the theory's many concepts. Cherniss' (1980) theory parallels transactional theory in regarding stress as a person-situation transaction, operating through appraisal.

Research into occupational stress has built on the general stress - psychological adaptation

literature to examine stressors, appraisal, coping and psychological adaptation simultaneously. A relationship between stressors at work and poor psychological adaptation has been demonstrated (Decker and Borgen, 1993; Landsbergis, 1988; Osipow and Davis, 1988; Terry *et al.*, 1993). In two cross-sectional studies of public sector and health workers, avoidance coping was associated with poorer psychological adaptation in the work place, and this was mediated by appraisals of control (Bowman and Stern, 1995; Terry, Tonge and Callan, 1995). Among emergency services workers, perceived threat, avoidance coping and self-controlling were associated with poorer psychological adaptation, particularly dissociative responses (Marmar, Weiss, Metzler *et al.*, 1996).

As for social support at work, a review of the literature suggests a main effect for social support on psychological adaptation (20 of the 22 studies reviewed) (Kahn and Byosiére, 1992). Several studies of public sector and health care workers suggest that practical and emotional support from supervisors and coworkers moderate the 'stressor - psychological adaptation' relationship (Baker, Israel and Schurman, 1996; Himle, Jayaratne and Thyness, 1989; Ross, Altmaier and Russell, 1989; Terry *et al.*, 1993). One study of work stress, support and psychological adaptation among mental health workers found that social support from coworkers (particularly practical support) mediated levels of emotional exhaustion, depersonalisation and a sense of personal accomplishment at work (Bowden, 1994). Interestingly, support outside the work did not mediate these dimensions of psychological adaptation. Another study showed that support from supervisors and coworkers was associated more strongly with psychological adaptation at work than support from family or friends (Greenglass, Fiksenbaum and Burke, 1996). This tentatively suggests that different types of support have different functional values in work-related psychological adaptation.

Conceptual and methodological issues

The literature on stress, appraisal, coping, social support and psychological adaptation is troubled by serious conceptual and methodological difficulties. Explanations of how difficulties were either acknowledged or addressed in this work are set out.

Conceptual issues

First, there is considerable confusion about *the nature of relationships* between appraisal, coping, social support and psychological adaptation, particularly in relation to causality. It can be argued that any attempt to prove causal relationships between appraisal, coping, social support and psychological adaptation is analogous to a cat chasing its own tail. To take one example,

appraisals of lack of control → avoidance coping → poor psychological adaptation

might prove an acceptable conceptual and empirical relationship. However, the converse might also prove conceptually and empirically acceptable, namely

poor psychological adaptation → avoidance coping → appraisals of lack of control.

One way of creating order from the chaos has been the distinction drawn between moderating and mediating variables (Baron and Kenny, 1986). Mediating effects refer to an effect between two variables that is necessarily mediated directly through a third mediating variable, as with avoidance coping in the diagrams above. Moderating effects refer to an effect between two variables that can be moderated by a third variable, but not directly. For example, in transactional theory, avoidance coping is moderated by appraisals of personal and social resources (Lazarus, 1993). Coping has been understood as both a mediating and moderating variable, and there is empirical support for both types of model (Aldwin and Revenson, 1987; Felton and Revenson, 1984; Valentiner *et al.*, 1994). Miles and Huberman (1994) have argued eloquently that the whole issue of causality in psychology is problematic: people are not billiard balls, but have complex intentions operating in a complex web of others' intentions and actions. Causes are therefore always multiple, combining and affecting one another as effects (Miles and Huberman, 1994). One possible solution to this issue is to seek *provisional explanatory* rather than *definitive causal* models. This distinction can be drawn along several lines. Causality invokes a sequential patterning of events and relationships over time, whereas explanation does not invoke time so definitively. Explanation permits discussion of patterns of *association* that go beyond simple description, but do not go as far as to imply causality. Thus, explanation falls between description and causal inference / prediction.

The concepts are as complex as the relationships between them, which leads to difficulties in agreeing on definitions and operationalizations. Beehr and McGrath (1996) argue that distinctions between stressors, appraisal, coping and psychological adaptation are indistinguishable experientially and '*in the eye of the beholder*' (p.66). One solution, in part, is careful definition and operationalization; so that what is in the eye of the beholder is clearly communicated.

Relatedly, appraisal, coping, social support and psychological adaptation are concepts that are necessarily couched in broader social and cultural values. For example, developing mindfulness and de-centring during times of crisis represents a valued and spiritually advanced Theravada Buddhist meditative practice, but is categorised as an immature coping strategy in a middle-class group of high functioning Harvard educated white men (Vaillant, 1977). Acknowledging the social and cultural context is important.

Methodological issues

Most measures, however valid, reliable and responsive, rely on self-report, mainly in the form of questionnaires. This questions the ecological validity of the findings, namely is what people say they think, do and feel in a stressful encounter what they actually think, do and feel? Relatedly, although the psychometric properties of many measures of appraisal and coping are adequate, they are not excellent. This does not reflect lack of attention to the development of measures. Rather, it probably reflects the complexity of the concepts, and the fact that there is some way to go before acceptable conceptual models, operationalizations of concepts and measures are developed. To address this difficulty, either measures with evidence of convergent validity or measures that were explicitly focused on the person's subjective evaluation were selected.

Operationalising the terms

The *definitions* of stress, appraisal, coping and psychological adaptation are derived from the theories reviewed. However, given the conceptual difficulties, the terms stressor, stress, appraisal, coping, social support and psychological adaptation are explicitly *operationalised*.

- ▶ **Stressor** is taken to mean the internal and external demands of training as a clinical psychologist that require the person to adjust his or her usual cognitive, affective and behavioural responses. Stressors can take the form of (1) daily hassles (e.g. travelling long distances to work), (2) chronic strains (e.g. being continually evaluated) and (3) life events and traumas (e.g. failing an assessment).
- ▶ **Stress** is taken to mean a person's appraisal of events as beyond his or her ability to control, handle or cope with them; consequently, these events are appraised as distressing.
- ▶ **Appraisal** is taken to mean the process by which a person ascribes meaning to a stressor. Appraisal refers to anticipated events, or the anticipated consequences of events. For the purposes of this work, appraisal is operationalised as meta-appraisal, that is to say evaluations of clinical psychology training *as a whole*.
- ▶ **Coping** is taken to mean cognitive and behavioural efforts to manage and relieve the distressing emotions and/or modify the stressful episode. The Ways of Coping Questionnaire scales (Folkman and Lazarus, 1988) were seen as one way of operationalising coping on conceptual and empirical grounds (See Method). Although, operationally it can be difficult to conceptualise coping scales in terms of direction and focus of coping, the following distinctions were drawn. In terms of the taxonomy of coping the following scales were operationalised as approach coping: seeking social support, planful problem solving and positive reappraisal. The following scales were operationalised as avoidance coping: distancing and escape-avoidance. The following scales included items addressing coping strategies that were both approach and avoidance: confrontative coping, self-controlling and accepting responsibility. All scales assessed both problem and emotion-focused coping strategies.
- ▶ **Social support** is taken to mean a person's satisfaction with practical and emotional support from a range of sources. Specifically, satisfaction with support was operationalised as the discrepancy between the ideal and perceived support received.
- ▶ **Psychological adaptation** is taken to mean a complex affective, cognitive and behavioural multidimensional construct comprising both positive facets (e.g. positive feelings) and negative facets (e.g. anxiety, depression and substance abuse). By establishing an overall profile of a person's view of his or her psychological functioning in a range of key areas, an approximation of his or her psychological adaptation was

assumed. Psychological adaptation refers to the state of adaptation at times when trainee clinical psychologists completed the measures.

Research questions and hypotheses

The review of the research on the psychological adaptation of clinical psychology trainees suggested one exploratory research question and several research hypotheses. In profiling the psychological adaptation of trainee clinical psychologists differences across important measurable dimensions of training were addressed: namely trainees' course, year of training and clinical placement. These dimensions have been considered in few studies (Cushway, 1992; Cushway *et al.*, 1996). The hypotheses concerned with profiling the psychological adaptation of trainees were stated as statistical null and alternate hypotheses, because the absence of compelling theory or research in this area did not enable the formulation of scientific directional research hypotheses (Ferguson and Takane, 1989).

Research question

What is the profile of stress and psychological adaptation in clinical psychology trainees?

Research hypotheses

- H₀ There will be no difference in the profile of stress and psychological adaptation across training courses.
- H_A There will be a significant difference in the profile of stress and psychological adaptation across training courses.
- H₀ There will be no difference in the profile of stress and psychological adaptation across the years of training.
- H_A There will be a significant difference in the profile of stress and psychological adaptation across the years of training.
- H₀ There will be no difference in the profile of stress and psychological adaptation across trainees' clinical placements.

H_A There will be a significant difference in the profile of stress and psychological adaptation across trainees' clinical placements.

The review of the theory and research on stress, appraisal, coping, social support and psychological adaptation, and its application to trainee clinical psychologists, suggested several directional research hypotheses.

Time one

Hypothesis 1. Appraisals of less threat and greater control over course stresses will be associated with more approach coping and less avoidance coping.

Time two

Hypothesis 2. More approach and less avoidance coping will predict better psychological adaptation over time.

Hypothesis 3. Perceptions of course-based social support will have a greater function in predicting psychological adaptation over time than home-based social support.

METHOD

Design

A mixed within-persons and between-persons design was used to examine the effects of coping and social support on stress and psychological adaptation at two time points over two years. Two cohorts participated (first year trainees and second year trainees), followed up one year later (then second year trainees and third year trainees). Although this provided a cross section of all three years training, there was a nested design with respect to year of training (Tabachnick and Fidell, 1989). For hypotheses concerned with training course, year of training and clinical placement, the variables 'course,' 'year' and 'placement' were conceptualised as between groups independent variables. For subsequent hypotheses these variables were either aggregated or handled as covariates.

In addition, a research diary ran from the inception to the completion of the study as a personal commentary and supplement to the main study (See Supplement).

The sample

First year and second year clinical psychology trainees from 15 three-year British CPTS (East Anglia, Edinburgh, Glasgow, Institute of Psychiatry, Leeds, Liverpool, Manchester, Newcastle, North Thames, North Wales, Oxford, Sheffield, Southampton, South Thames/Salomons and South Wales) were asked to participate (total available sample 304 trainees). Course sizes were computed by adding the intake of trainees in the two participating cohorts.

Time one sample

At time one, 183 trainees participated (60.2 per cent response rate), 105 (57 per cent) in their first year of training and 78 (43 per cent) in their second year. The response rate varied considerably across courses (29 per cent to 75 per cent). The response rate was 50 per cent or greater from 12 of the 15 courses.

One hundred and fifty participants were women (82 per cent) and 33 were men (18 per cent). The mean age was 27.2 (SD 4.05), ranging from 23 to 43. The marital status of the participants was: single 87 (48 per cent), cohabiting 58 (32 per cent), married 36 (20 per cent), divorced one (0.5 per cent). One respondent did not indicate marital status. The sample's profile of demographic features is broadly consistent with clinical psychology trainees nationally (Clearing House for Postgraduate Courses in Clinical Psychology Equal Opportunities Data 1994, 1995).

At time one, trainees' clinical placements were: Adult Mental Health 92 (50 per cent), Children and Families 37 (20 per cent), Learning Disabilities 41 (22 per cent) and Older Adults 13 (7 per cent). Trainees had been on placement an average 3.12 months (SD 1.22), ranging from one to eight months.

Time two sample

At time two, 167 trainees participated (91.3 per cent of the time one sample; 55 per cent of total available sample). At time two, 96 (57 per cent) were in their second year of training and 71 (43 per cent) were in their third year. One hundred and thirty-eight participants were women (83 per cent) and 29 were men (17 per cent). The marital status of the participants at time two was: single 80 (48 per cent), cohabiting 50 (30 per cent), married 35 (21 per cent), divorced one (0.5 per cent). One respondent did not indicate marital status. Participants who did and did not choose to participate at time two were not significantly different in age (Mann-Whitney (1) $U = 1034$, not significant, $N=183$), year of training (Chi-square (1) <1 , $N=183$), gender (Chi-square (1) <1 , $N=183$) or marital status (Chi-square (4) = 3.70, not significant, $N=183$).

At time two, trainees' clinical placements were: Adult Mental Health 3 (2 per cent), Children and Families 43 (26 per cent), Learning Disabilities 33 (20 per cent), Older Adults 31 (19 per cent) and Elective/Specialist 57 (34 per cent). Trainees had been on placement an average 1.76 months (SD 1.47), ranging from having just started to having been on placement six months.

To examine further if trainees who participated at both times differed from those who

participated only at time one, in terms of their psychological adaptation at time one, a series of analyses were computed. Simple ANOVA designs are robust to departures from normality, if the criteria of homogeneity of variance, ordinal and continuous measurement scales and similar group sizes are adhered to (Howell, 1987). For these analyses, however, group sizes were markedly different across levels of the independent variable (16 and 167). Therefore, non-parametric tests were computed (Mann-Whitney). There were no significant differences between trainees who did or did not choose to participate at time two in their time one psychological adaptation. All Mann-Whitney U's (DF 1) were not statistically significant (two-tailed), $N=183$.

Measures

On conceptual grounds the measures selected were distinguished as either assessing mediating and or moderating psychological adaptation variables (Table 1).

Table 1. Mediating, moderating and psychological adaptation variables.

<i>Mediating and or moderating variables</i>	<i>Psychological adaptation variables</i>
Appraisals of threat Appraisals of control Appraisals of harm-loss Coping: approach and avoidance Social support	Stress Psychological adaptation scales Positive feelings

Mediating and moderating variables

Appraisal (Appendix 1).

As no validated measure of appraisal has been published that is consistent with Lazarus and Folkman's (1984) theory, a measure of appraisal was developed for this study. On conceptual grounds questions addressing appraisals of (1) *threat*, (2) *harm-loss* and (3) *control* were

included. Fifteen questions were selected from several key papers suggested by Lazarus (Lazarus, personal communication, 1995) (Florian *et al.*, 1995; Folkman and Lazarus, 1985; Folkman *et al.*, 1986; Valentiner *et al.*, 1994). Appraisal questions were matched with 5-point Likert scales ranging from 'not at all / does not apply to me' (1) to 'very much' (5).

Appraisals of threat, particularly to self-esteem, were assessed with six conceptually derived questions, that have subsequently been confirmed through factor analyses (Folkman and Lazarus, 1985; Folkman *et al.*, 1986). This suggests some face and construct validity. In this sample acceptable item inter-correlations (.30 to .64), item-total correlations (.48 to .71) and substantial internal consistency (Cronbach alpha .83) were found (N=179). This suggests reliability (internal consistency). The questions selected for the appraisals of threat scale were:

- ▶ To what extent have you thought you might lose the approval or respect of someone important to you because of the stresses of the course?
- ▶ To what extent have you thought you might lose your self-respect because of the stresses of the course?
- ▶ To what extent have you thought you might appear incompetent because of the stresses of the course?
- ▶ To what extent have you thought you might lose the affection of someone important to you because of the stresses of the course?
- ▶ To what extent have you thought the stresses of the course might make you appear to be an uncaring person?
- ▶ To what extent have you thought you might appear unethical because of the stresses of the course?

The threat appraisal scale was scored through simple summative scaling, so that a higher score indicated greater appraisals of threat (range 6-30).

Appraisals of harm-loss were addressed through four questions assessing the extent to which respondents felt the stresses of the course might 'prevent you from achieving an important goal?', 'harm your health, safety, or physical well-being?', 'strain your financial resources?' and

'cause you to lose your respect for someone else?'. Item-inter-correlations suggested these questions were assessing separate aspects of the appraisal process. No overall scale of appraisals of harm-loss could be constructed from the questions included in this work. Furthermore, responses for the four questions were all highly positively skewed (Kolmogorov-Smirnov $Z > 2$, $p < 0.001$), and showed little variation (all standard deviations < 1.5). The harm-loss questions were therefore not used in further analyses.

Appraisals of control over the demands and stresses of the course were measured with five questions (three reverse scored). These questions were derived from a theoretical model (Lazarus and Launier, 1978), and have been subjected to tests of test-retest reliability, construct validity, predictive validity and criterion validity (Folkman and Lazarus, 1980; Folkman *et al.*, 1986a, 1986b; Florian *et al.*, 1995). In the time one sample, item inter-correlations and internal consistency for this scale were not acceptable (item inter-correlations $< .3$; Cronbach alpha $< .4$). However, by deleting the two questions with the lowest item-total correlations, acceptable item inter-correlations (.41 to .51), item-total correlations (.48 to .56) and internal consistency were achieved (Cronbach alpha .71). The three questions included in this scale asked about the extent to which 'you have felt you had control over the stresses of the course?', 'the stresses of the course were something you could change or do something about?' and 'the stresses of the course were something you had to accept?'. The control scale was scored through simple summative scaling (one question reverse scored), so that higher scores suggested appraisals of greater control (range 3-15).

Therefore, appraisal was assessed with nine questions asking about trainees' appraisals of (1) *threat* and (2) *control* in clinical training.

Coping

Coping was assessed with the Ways of Coping Questionnaire (WCQ) (Folkman and Lazarus, 1988) (Appendix 2). The WCQ is a well-established 50-question measure, addressing a broad range of emotional and behavioural coping strategies. Folkman and Lazarus describe eight scales that can be derived from the WCQ. These are confrontative coping (six questions, e.g. 'I

stood my ground and fought for what I wanted', range 0-18); distancing (six questions, e.g. 'I went on as if nothing had happened', range 0-18); self-controlling (seven questions, e.g. 'I tried to keep my feelings to myself', range 0-21); accepting responsibility (four questions, e.g. 'I criticised or lectured myself', range 0-12); escape-avoidance (eight questions, e.g. 'I avoided being with people in general', range 0-24); seeking social support (six questions, e.g. 'I asked a friend or relative for advice,' range 0-18); planful problem solving (six questions, e.g. 'I just concentrated on what I had to do next', range 0-18) and positive reappraisal (seven questions, e.g. 'I changed or grew as a person in a good way', range 0-21). Respondents were required to indicate the extent to which they used each of the coping responses on four-point Likert scales, ranging from 'does not apply or not used' (0), to 'used somewhat' (1), to 'used quite a bit' (2), to 'used a great deal' (3).

The WCQ has been shown to have good content validity (Aldwin and Revenson, 1987; Folkman and Lazarus, 1988). In addition the WCQ has been found to capture changes in coping across different encounters, and within a particular encounter, suggesting sensitivity to the process of coping and predictive validity. Internal reliability figures are reported as ranging from .61 (distancing) to .79 (positive reappraisal) among a community sample of married couples. In the time one sample (N= 183), Cronbach alphas suggested adequate to moderate internal consistencies: confrontative coping .57, distancing .59, self-controlling .62, seeking social support .65, accepting responsibility .48, planful problem solving, .67, positive reappraisal .68 and escape avoidance .68.

The factor structure across populations and stressful episodes suggests a good deal of convergence (Vitaliano, Russo, Carr, *et al.*, 1985; Aldwin and Revenson, 1987). In addition, the WCQ can detect expected differences within and between populations (e.g. Kuyken and Brewin, 1994).

The WCQ was completed with respect to course-related stressors over the last month.

Social support

Social support was assessed with the Significant Others Scale (SOS) (Power *et al.*, 1988) (Appendix 3). The SOS was developed to assess a person's self-ratings of actual and ideal emotional and practical support, and the discrepancy between ideal and actual support. Therefore, three separate indices for both emotional and practical support can be calculated - *actual*, *ideal* and the *discrepancy* between the actual and ideal. The last of these provides an index of likely satisfaction with available support in each area, and was the measure of social support used in this work. Higher scores suggest greater dissatisfaction with support.

Power *et al.* (1988) claim satisfactory reliability and validity. Test-retest reliability over a six-month interval ranges from .73 to .83 across the four summary scores (actual versus ideal / emotional vs practical) (Power *et al.*, 1988). Discriminant validity for ideal and discrepancy scores has been demonstrated by comparing different groups (Power *et al.*, 1988). The SOS has also demonstrated predictive validity over six months in depressive symptomatology, even after controlling for symptoms at time one (Power, 1988).

The instrument was designed to be flexible. Users are encouraged to adopt the version which meets their needs by varying the number of individuals to be rated (Power *et al.*, 1988). Therefore, the following five named sources of social support were included:

- ▶ Supervisor on clinical placement.
- ▶ Another individual on placement.
- ▶ The course.
- ▶ Other trainees.
- ▶ Confidante relied on most outside work.
- ▶ In addition, respondents were given the opportunity to select one other individual 'who is a source of emotional and/or practical support to you.'

However, trainees selected differing individuals in the two categories 'another individual on placement' and 'someone (else) who is a source of emotional and/or practical support to you.'

Because of difficulties in aggregating different types of support, these two named sources of social support were not analysed at time one and not included with the measures at time two.

The scale was self-administered. Respondents rated each individual named for each of the four types of support. Seven-point Likert scales of the frequency that actual/ideal and emotional/practical support were felt were used, ranging from 'never' (1) to 'always' (7).

Measures of psychological adaptation

Psychological Adaptation

To assess psychological adaptation the Employee Assistance Program Inventory (EAPI) (Anton and Reed, 1994) was used (Appendix 4). The EAPI is a 120-question measure designed as an assessment measure for employees in Employee Assisted Programs that provide counselling and other services to working adults. It enables the identification and profiling of psychological problems. Consistent with a conceptualization of adaptation as a multi-dimensional profile, the EAPI measures several domains of psychological adaptation (Table 2). Large samples have completed the EAPI. Scales are scored through simple summative scaling (some questions reverse scored), such that scale scores suggest greater problems in each of the ten domains of adaptation (range 10-48). In addition, Anton and Reed (1994) describe guidelines for comparisons with normative data, calculating *T* scores and screening for substance abuse problems.

Table 2. The dimensions of the Employee Assisted Programme Inventory.

Anxiety	A measure of clinical anxiety, focusing on common affective, cognitive and physiological symptoms.
Depression	A measure of clinical depression, focusing on common affective, cognitive and physiological symptoms, including recent thoughts of suicide, hopelessness and resignation.
Self-esteem problems	A measure of global self-esteem, which assesses negative self-evaluations and dissatisfaction with personal achievement.
Marital problems	A measure of the extent of relationship problems experienced with a spouse or partner.
Family problems	A measure of difficulties experienced in relationships with family members.
External stressors	A measure of the extent to which the person is experiencing or perceiving stressful events external to the work situation, including legal, financial, and health-related stressors.
Interpersonal conflict	A measure of the extent of conflicts with others at work.
Work adjustment	A measure of satisfaction with various features of work, including pay, opportunity for advancement, working conditions, and sense of control over one's job.
Problem minimization	A measure of the extent to which the person understates the extent or severity of problems or is likely to externalise responsibility for problems and / or reject help.
Substance abuse	A measure of the degree of disruption in interpersonal, social, and vocational functioning resulting from drug and/or alcohol use and abuse.

Anton and Reed (1994) report data attesting to the reliability and validity of the measure. Good to substantial internal consistency figures (Cronbach alphas) are reported for the ten scales, ranging from .73 (problem minimization) to .92 (marital problems) (Anton and Reed, 1994). In the time one sample, a similar profile of internal consistencies was found: self-esteem problems .79; work adjustment .78; depression .86; external stressors .80; family problems .87; anxiety .88; problem minimization .73; interpersonal conflict .76; substance abuse .79; marital problems .91.

Several studies suggest the convergent and discriminant validity of the whole EAPI and each of its sub-scales (Anton and Reed, 1994). It appears to be a sensitive measure of adjustment and psychological distress in employed adults.

Perceived stress

Perceived stress was assessed using the Perceived Stress Scale (Cohen, Kamarck and Mermelstein, 1983) (Appendix 5). This scale aims to measure the degree to which situations over the previous month are appraised as stressful, and includes questions about the unexpectedness, controllability and amount of stressors.

Good to substantial reliability (internal consistency) has been reported (Cohen *et al.*, 1983; Cohen and Williamson, 1988). In the time one sample, substantial internal consistency was found (Cronbach alpha .87; N=182). Over short periods (two days), substantial test-retest reliability has been reported. Evidence of concurrent and criterion validity has been reported (Cohen *et al.*, 1983). The measure was also better able to predict future physical symptomatology than measures of life events, suggesting predictive validity (Cohen *et al.*, 1983). Factor analyses suggest two factors, representing the positively and negatively framed questions.

The scale exists in three forms (14, 10 and 4 questions). The authors suggest the use of the 10-question measure because of its good psychometric properties. The ten-question scale was therefore used. Questions are scored on five point scales from 'never' (0) to 'very often' (4) (4 questions reverse scored). Higher scores suggest greater perceived stress (range 0-40).

Positive feelings

To assess positive psychological adaptation a four-item scale from the World Health Organization Quality of Life Assessment (WHOQOL) was used (WHOQOL Group, 1995; WHOQOL Group, submitted) (Appendix 6). The WHOQOL assesses individuals' perception of their position in life in the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It has been developed collaboratively in fifteen cultural settings over five years. It yields a multi-dimensional profile of scores across six domains and 24 sub-domains (facets) of quality of life. The positive feelings scale measures how much a person experiences positive feelings of contentment, balance, peace, happiness, hopefulness, joy and enjoyment. The scale is scored through simple summative scaling, with higher scores suggesting greater positive feelings (range 4-20).

The WHOQOL is still under development, but preliminary data attests to the face, content and discriminant validity of these two scales (WHOQOL Group, submitted). The questions were selected from a large sample based on their distributions, high item-own scale correlations and low item-other scale correlations. In this time one sample good internal consistency was found for the positive feelings scale (Cronbach alpha .79).

The scale was self-administered, and respondents were asked to respond on five point Likert scales ranging from 'not at all' (1) to 'an extreme amount / extremely' (5). The scales were appended to the EAPI, and no additional instructions were given.

Procedure

After obtaining permission to carry out the study from CPTS course directors (Appendix 7), a key liaison person at each CPTS was asked to mediate between the study coordinator and the participants. To maximise the response rate, the suggestions of Dillman (1978) and Streiner and Norman (1989) were followed. Their suggestions include advance warning that the survey is coming, careful wording of the cover letter (Appendix 8), anonymity, personalization, enclosing a stamped addressed envelope, reasonable questionnaire length and follow-up. The liaison person was asked to describe the main aims of the work, and what would be involved in participating several months before the survey questionnaires were sent out. The confidentiality of trainees was assured, and informed consent obtained at time one. The questionnaires were distributed to individual trainees in the first and second years with prepaid addressed envelopes in November 1995, and were returned up to March 1996. The time to complete the battery was approximately 30 minutes at time one.

At time two the follow up measures were sent directly to individual participants with prepaid envelopes. They were sent in September 1996, asking participants to return them by December 1996.

Ethical considerations

The ethical issues raised by asking my peers to participate in this study were addressed in the following way (British Psychological Society, 1993, 1995). Participation was voluntary and responses were confidential. Participants were also informed about the planned dissemination of results and given the opportunity to request that these were also sent directly to them after time two. When completed questionnaires were returned, they were passed unopened to a research assistant. She was responsible for removing identifying information from the questionnaire packs

(the front page) and entering the data onto a computer. Furthermore, after the second stage of the project, all identifying information was shredded. In publishing, presenting and feeding back results to individual courses every effort was made to protect participants' anonymity and the confidentiality of courses.

Permission to carry out the study was granted by the South Thames (Salomons) Ethics Panel (Appendix 9). The ethical guidelines used by this committee resemble closely those of the British Psychological Society (BPS) Code of Conduct (BPS, 1993), the BPS Division of Clinical Psychology Practice Guidelines (BPS, DCP, 1995). Therefore, their permission to undertake this work was felt to be a reasonable guarantee that the ethical standards of the work were acceptable nationally.

RESULTS

The data entry and analysis were carried out using SPSS 6.1 for Windows, EQS 5.1 for Windows and STATA Release 5 software. The management and exploration of the data are described in Appendix 10.

Analysis strategy

The rationale for the analysis strategy was to address the research questions and hypotheses in a way that began to build an explanatory model of appraisal, coping, social support and psychological adaptation. The five analysis phases were:

- Phase 1.** Profiling the psychological adaptation of trainees.
- Phase 2.** Cross-sectional correlations at time one between mediating and moderating appraisal, coping and social support variables, and psychological adaptation variables.
- Phase 3.** Multiple regressions of the mediating and moderating variables on key psychological adaptation variables, using the time one cross-sectional data to build a tentative understanding of the relationships between appraisal, coping, social support and psychological adaptation.
- Phase 4.** Longitudinal correlations between the time one mediating and moderating variables and time two psychological adaptation variables to examine the hypothesised relationships over time.
- Phase 5.** Path analyses to test the predicted pattern of relations between appraisal, coping, social support and psychological adaptation.

The data management and exploration suggested that many variables did not meet the criterion of normality for parametric statistics. Data transformations yielded some reduction in skewness on some, but not all variables (Appendix 10). Following the American Psychological Association's recommendations and the difficulties of interpretation that can arise from using a mixture of transformed and untransformed scales (Azar, 1997; Bland and Altman, 1996a, 1996b; Hinkle, Wiersma & Jur, 1988), a decision was made to use untransformed scales, with the proviso

that scales and analyses were described in detail.

Non-parametric statistics were suggested because many scales and combinations of scales did not meet the criteria for parametric data. Howell (1987) has argued, however, that many statistical procedures for parametric data are robust to minor violations of the assumption of parametric data, and the normality assumption in particular can be violated with minor effects. Therefore, parametric statistics were used. However, on several occasions the assumptions for parametric assumptions were violated beyond reasonable limits and non-parametric statistics were used (Howell, 1987).

To protect against the risk of Type I errors that can result from large numbers of analyses, a probability level of $p < 0.01$ was adopted for all exploratory analyses, whilst a probability level of $p < 0.05$ was adopted for tests of research hypotheses. Furthermore, more exploratory analyses and tests of the null hypothesis were addressed with two-tailed tests. Analyses concerned with research hypotheses were addressed with one-tailed tests (Ferguson and Takane, 1989).

Relationship of demographic data with mediating, moderating and psychological adaptation variables.

Before considering each of the research questions / hypotheses, any influence of the demographic variables at time one on either the mediating, moderating or psychological adaptation variables was examined.

To examine any **relationship between trainees' age and either the mediating, moderating or psychological adaptation variables**, two-tailed Pearson correlations were computed. No significant relationships were observed ($p < 0.01$). To examine the relationship between **trainees' gender (independent variable with two levels) and the mediating, moderating and psychological adaptation variables (dependent variables)** a series of one-way ANOVAs was computed. These suggested significant differences between male and female trainees in:

distancing:	male M 6.21, SD 2.71, 95 per cent confidence interval 5.00-7.43 female M 4.41, SD 2.42, 95 per cent confidence interval 4.02-4.80 $F(1,182) = 12.79, p < 0.01$.
seeking social support:	male M 8.67, SD 3.54, 95 per cent confidence interval 7.41-9.92 female M 10.44, SD 3.11, 95 per cent confidence interval 9.93-10.94 $F(1, 182) = 8.32, p < 0.01$.
substance abuse problems:	13 per cent of female trainees above scale cutoff (>16) 42 per cent of male trainees above scale cutoff (>16) Chi-square = 16.20, $p < 0.001, N=183$.

In sum, male trainees were significantly more likely to cope through distancing and less likely to cope through seeking social support than female trainees. They were also more likely to report substance abuse problems than female trainees.

To examine the relationship between **trainees' marital status** (independent variable with six levels) **and each of the mediating, moderating and psychological adaptation variables** (dependent variables), one-way ANOVAs were computed. No significant differences were found.

Phase 1. What is the profile of stress and psychological adaptation in clinical psychology trainees?

To address this question descriptive statistics for the psychological adaptation scales were computed (Table 3). The transformed T score on the EAPI problem minimization scale at time one (mean 38.71, standard deviation 8.84, 95 per cent confidence intervals 37.36 - 40.01) suggested that problems were not being under-reported.

Table 3. The psychological adaptation of trainee clinical psychologists at time one ($N=183$) and time two one year later ($N=166$).

		Mean (standard deviation)	95% confidence intervals	Percent one & two standard deviations > mean		Distribution
				1 SD	2 SD	
Psychological adaptation						
Stress	time one time two	17.37 (6.08) 19.05 (6.22) $t=3.17^{**}$	16.48 - 18.26 18.10 - 20.01	-	-	Bi-modal Bi-modal
EAPI Scales						
self-esteem problems	time one time two	56.73 (10.12) 58.22 (10.97) $t=1.47$	55.24 - 58.23 56.54 - 59.91	35 39	15 20	Positive skew Bi-modal
work adjustment problems	time one time two	53.53 (8.84) 56.39 (8.99) $t=3.94^{***}$	52.23 - 54.84 55.01 - 57.77	26 33	5 8	Positive skew Tri-modal
depression	time one time two	54.50 (11.07) 57.16 (12.37) $t=3.04^{**}$	52.88 - 56.12 55.26 - 59.06	26 38	14 20	Positive skew Positive skew
external stressors	time one time two	51.25 (9.78) 50.22 (10.08) $t=1.64$	49.82 - 52.69 48.67 - 51.77	23 17	6 7	Positive skew Positive skew
family problems	time one time two	51.81 (10.35) 52.14 (10.14) $t=.03$	50.28 - 53.33 50.59 - 53.70	19 21	8 6	Positive skew Positive skew
anxiety	time one time two	54.59 (10.17) 54.75 (10.74) $t=.25$	53.09 - 56.09 53.10 - 56.40	28 28	9 12	Bi-modal Positive skew
interpersonal conflict	time one time two	49.60 (8.67) 51.75 (8.54) $t=3.19^{**}$	48.33 - 50.88 50.44 - 53.06	12 18	4 2	Positive skew Positive skew
marital problems	time one time two	47.99 (8.36) 49.73 (10.03) $t=2.39$	46.76 - 49.22 48.16 - 51.29	9 16	3 8	Bi-modal Bi-modal
WHOQOL positive feelings	time one time two	14.32 (2.25) 13.45 (2.75) $t=4.53^{***}$	13.99 - 14.64 13.03 - 13.88	-	-	Negative skew Negative skew

** $p<0.01$; *** $p<0.001$

Note. Scores on the EAPI psychological adaptation scales are T scores {i.e. 0-100 derived from normative data (mean 50, standard deviation 10) provided by Anton and Reed, 1988}.

Note. Scores on the perceived stress scale (0-34) and WHOQOL positive feelings scale (4-20) are raw scores. Normative data sets from which to calculate T scores were not available.

Note. Paired sample t -tests (two-tailed) were computed to examine any significant differences in psychological adaptation among trainees assessed at time one and two.

Visual inspection of the stem and leaf plots and descriptive statistics suggested that all EAPI psychological adaptation scale scores were within one standard deviation of the standardisation sample's descriptive statistics at both times. However, significant numbers of individuals in this sample reported poorer psychological adaptation than the standardisation sample³ (positive skew, elevated means), particularly in terms of self-esteem problems, work adjustment problems, anxiety and depression (Table 3). The three EAPI questions concerned with hopelessness (thought to be predictive of suicidal ideation) were examined (e.g. 'I feel hopeless about my life'). Most respondents (>80 per cent) reported no hopelessness, a significant minority reported slight hopelessness (approximately 10 per cent) and a small number reported significant hopelessness (approximately 1 per cent). The WHOQOL positive feelings scale suggested that most trainees reported positive feelings. Again, a significant number of trainees reported the absence of positive feelings.

Two additional questions arose about the profile of psychological adaptation. **First, did trainees' psychological adaptation change over time?** The matched sample *t*-tests used the psychological adaptation variables as dependent variables, measured for trainees participating at time one and two ($N=166$). The computations and descriptive data together suggested that trainees reported a significant increase in stress, work adjustment problems, depression and interpersonal conflict, and a significant decrease in positive feelings over time (Table 3). **Second, did the same trainees who reported problems at time one continue to report problems one year later?** Two-tailed Pearson correlations were computed to examine the degree of association between trainees' psychological adaptation at time one and time two⁴. The results of these computations were as follows: **stress** $r=0.53$, **self-esteem problems** $r=0.66$, **work adjustment problems** $r=0.53$, **depression** $r=0.60$, **external stressors** $r=0.64$, **family problems** $r=0.55$, **anxiety** $r=0.66$, **interpersonal conflict** $r=0.58$, **substance abuse problems** $r=0.73$, **marital problems** $r=0.61$, **positive feelings** $r=0.59$. The associations were all high, statistically significant (all p 's < 0.001) and positive, suggesting that the individual differences in psychological

³ 'Significant numbers of trainees experiencing problems' was defined as 25 per cent of trainees scoring at least one standard deviation above the standardisation sample mean provided by Anton and Reed (1994), namely a *T* score > 60.

⁴ The magnitude of correlational coefficients are described throughout as follows: none or low 0 -0.30, moderate 0.30 -0.50, high >0.50.

adaptation at time one and two were associated. The percentage of trainees experiencing significant problems in psychological adaptation remained relatively constant for all scales, excepting increases in the number of trainees reporting work adjustment problems and depression⁵. Examination of the scatter plots and correlation coefficients together suggested that many of the same trainees who experienced significant difficulties at time one continued to experience difficulties at time two. However, there was (1) a significant increase over time in *the degree of stress, work adjustment problems, depression and interpersonal conflict* and a significant decrease in positive feelings and (2) a notable incremental rise in *the number of people* experiencing significant work adjustment problems and depression.

In summary, comparing the current sample with the standardisation sample (Anton and Reed, 1994) suggested that overall trainee clinical psychologists were not experiencing high global rates of distress. However, a significant number of trainees did report significant self-esteem problems, work adjustment problems, depression and anxiety. Furthermore, over time trainees experienced significant increases in stress, work adjustment problems, depression, interpersonal conflict and a significant decrease in positive feelings. Whilst there was moderate to high consistency in those trainees experiencing problems over time, there was a notable increase in the number of people experiencing work adjustment problems and depression.

H₀: There will be no difference in the profile of stress and psychological adaptation across training courses.

To examine this null hypothesis, a non-parametric strategy was selected because group sizes across courses were small and markedly different (range 7-24). A combination of heterogeneous variances, small numbers across levels of the independent variable and unequal sample sizes can be problematic in parametric statistics, particularly ANOVA models (Howell, 1987). Therefore, a series of Kruskal-Wallis tests (DF 14) (corrected for ties) was computed on the time one data, with each of the psychological adaptation variables as the dependent variable and training course (15 levels) as the independent variable.

⁵ Interestingly, the percentage of trainees experiencing significant external stressors decreased from 23 per cent to 17 per cent from time one to time two.

The null hypothesis was accepted for the following dimensions of psychological adaptation: **stress** Kruskal-Wallis $X^2=28.03$, **self-esteem problems** Kruskal-Wallis $X^2 = 17.05$, **external stressors** Kruskal-Wallis $X^2 = 14.59$, **family problems** Kruskal-Wallis $X^2 = 13.29$, **anxiety** Kruskal-Wallis $X^2 = 24.04$, **interpersonal conflict** Kruskal-Wallis $X^2 = 16.99$ and **substance abuse problems** Kruskal-Wallis $X^2 = 17.15$. The null hypothesis could be rejected and the alternate hypothesis accepted for the following dimensions of psychological adaptation: **work adjustment problems** Kruskal-Wallis $X^2 = 32.29$, $p<0.01$ and **depression** Kruskal-Wallis $X^2 = 38.38$, $p<0.001$. Although the descriptive statistics suggested possible areas of difference, the small numbers in each group and the large numbers of comparisons precluded *post-hoc* tests⁶.

Differences found in work adjustment problems and depression across courses raised the question of what factors might account for them. Although examination of the many possible factors was beyond the scope of this study, one obvious and easily measurable difference was the size of the participating courses, in terms of number of trainees in each year. To establish whether course size might be associated with psychological adaptation, two-tailed Pearson correlations were computed between course size (the number of trainees on each course at time one) and each of the mediating, moderating and psychological adaptation variables. No correlation coefficient reached significance.

H₀: There will be no difference in the profile of stress and psychological adaptation across year of training.

A regression model was fitted with psychological adaptation as the dependent variable in each case, and year of training (1, 2 and 3) as the independent variable. In addition, cohort (year of entry 1994 and 1995) was added as an additional independent variable to control for any effects of year of entry. Year and cohort were represented by dummy variables. The nested design was taken into account by using Huber-White 'sandwich' estimates (StataCorp, 1997). The clustering of repeated observations for the same person are accounted for in this procedure. The adjusted mean scores and significance of *t* scores across years of training are shown in Table 4.

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Descriptive statistics across courses were not presented to preserve courses' anonymity.

The null hypothesis that there would be no difference in psychological adaptation across year of training could be rejected for stress, work adjustment problems, depression, interpersonal conflict and positive feelings scales (Table 4). In each case significant differences were found between years one and two and one and three, but not years two and three. This suggests that trainee clinical psychologists experienced increasing stress, work adjustment problems, depression, interpersonal conflict and decreasing positive feelings over the three years of their training, with the significant changes between years one and two.

In summary, therefore, the null hypothesis that there would be no difference in stress and psychological adaptation across years of training could be rejected. Significant increases in stress, work adjustment problems, depression, interpersonal conflict and decreases in positive feelings were observed over the three years of training, with the significant changes being from year one to year two of training.

Table 4. Adjusted mean differences (95% confidence intervals) in psychological adaptation by year of training ($N=183$, nested, i.e. 349 observations).

	Stress	Self-esteem problems	Work adjustment problems	Depression	External stressors	Family problems	Anxiety	Interpersonal conflict	Substance abuse	Marital problems	WHOQOL positive feelings
Difference year 1 - 2	1.89 ** (.79 - 3.00)	1.11 (.10 - 2.11)	2.82*** (1.94 - 3.69)	2.19*** (1.06 - 3.31)	.15 (-.75 - 1.05)	-.02 (-1.29- 1.25)	.82 (-.23 - 1.89)	1.91*** (1.20 - 2.61)	-.09 (-.55 - .37)	1.64 (.38 - 2.90)	-1.10*** (-1.48- -.92)
Difference year 1 - 3	3.30** (1.36 - 5.23)	1.20 (-.25 - 2.66)	2.89*** (1.34 - 4.42)	2.62*** (1.01 - 4.24)	-.1.05 (-2.48 - .37)	.55 (-1.21- 2.31)	.19 (-.48 - 1.87)	1.63** (.56 - 2.70)	-.12 (-.77 - .53)	2.34 (.50 - 4.18)	-1.66*** (-2.40- -.92)
Difference year 2 - 3	1.41	.09	.07	.43	-1.2	.53	-.63	-.28	-.03	.70	-.56

** $p<0.01$; *** $p<0.001$

Note. Cohort was added as an additional independent variable, to control for any effects of year of entry to clinical psychology training.

Note. Adjusted mean differences for the year 2 -3 differences were computed from the discrepancy between the year 1- 2 and year 1- 3 differences.

Table 5. Raw means (and standard errors) and 95% confidence intervals for stress and psychological adaptation (T scores) by placement ($N=183$, nested, i.e. 349 observations).

	Stress Mean (SE) 95% CI	Self-esteem problems Mean (SE) 95% CI	Work adjustment problems Mean (SE) 95% CI	Depression Mean (SE) 95% CI	External stressors Mean (SE) 95% CI	Family problems Mean (SE) 95% CI	Anxiety Mean (SE) 95% CI	Interpersonal conflict Mean (SE) 95% CI	Marital problems Mean (SE) 95% CI	WHOQOL positive feelings Mean (SE) 95% CI
Adult Mental Health ($N=94$)	16.89 (.65) 15.60-18.19	56.21 (.96) 54.30-58.13	50.63 (.79) 49.06-52.20	52.66 (1.02) 50.63-54.69	49.49 (.99) 47.53-51.45	53.15 (1.15) 50.87-55.44	53.12 (.98) 51.17-55.07	47.48 (.77) 45.96-49.01	48.10 (.89) 46.34-49.86	14.31 (.22) 13.86-14.76
Children and Families ($N=80$)	17.66 (.63) 16.41-18.92	57.15 (1.26) 54.65-59.66	54.47 (.93) 52.62-56.63	56.03 (1.41) 53.22-58.83	50.72 (1.14) 48.44-53.00	51.02 (1.09) 48.86-53.19	53.56 (1.14) 51.28-55.83	50.78 (1.02) 48.76-52.81	49.47 (1.08) 47.32-51.62	13.87 (.29) 13.29-14.45
Learning Disabilities ($N=74$)	19.74 (.78) 18.19-21.30	58.82 (1.34) 56.15-61.49	58.64 (1.17) 56.30-60.97	59.38 (1.51) 56.38-62.39	53.56 (1.07) 51.42-55.69	52.58 (1.25) 50.09-55.07	58.33 (1.25) 55.83-60.83	52.84 (1.00) 50.85-54.82	49.56 (1.23) 47/11-52.02	13.73 (.34) 13.05-14.40
Older Adults ($N=43$)	17.67 (.83) 16.01-19.34	57.34 (1.66) 54.00-60.68	54.77 (1.20) 52.34-57.19	54.68 (1.57) 51.51-57.85	49.57 (1.52) 46.50-52.63	49.50 (1.26) 46.96-52.04	52.80 (1.53) 49.72-55.87	51.60 (1.51) 48.55-54.66	47.21 (1.26) 44.66-49.75	13.82 (.37) 13.08-14.55
Elective / Specialist ($N=57$)	19.36 (.83) 17.70-21.01	58.26 (1.39) 55.47-61.06	57.95 (1.20) 55.61-60.29	56.72 (1.57) 53.57-59.86	50.25 (1.42) 47.41-53.08	52.39 (1.34) 49.70-55.07	55.49 (1.49) 52.51-58.47	51.96 (1.05) 49.85-54.08	49.33 (1.19) 46.95-51.70	13.59 (.34) 12.91-14.26

** $p<0.01$; *** $p<0.001$

H₀: There will be no difference in the profile of stress and psychological adaptation across trainees' clinical placements.

The descriptive data for the stress and psychological adaptation scales across clinical placements are summarised in Table 5, across both time points. To address this hypothesis a regression model was fitted with psychological adaptation as the dependent variable in each case, and placement as the independent variable (with five levels: Adult Mental Health, Children and Families, Learning Disabilities, Older Adults and Elective). However, because trainee clinical psychologists tend to follow a particular order of placements, to control for any confounding influence of year of training 'year' was added as an additional independent variable. Placement and year of training were represented by dummy variables. The nested design (including between groups and repeated measures data across all three years) was taken into account by using Huber-White 'sandwich' estimates (StataCorp, 1997). This had the added benefit of overcoming difficulties of markedly uneven sample sizes across levels of the independent variable by including the nested data and so providing more balanced numbers of observations in each level of the independent variable. No overall significant differences ($p < 0.01$) in stress and psychological adaptation across placements were found: **stress** $F(4, 182) = 2.28$, **self-esteem problems** $F(4, 182) = .90$, **work adjustment problems** $F(4, 182) = 1.99$, **depression** $F(4, 182) = 2.06$, **external stressors** $F(4, 183) = 2.49$, **family problems** $F(4, 182) = 2.10$, **anxiety** $F(4, 182) = 3.31$, **interpersonal conflict** $F(4, 182) = .68$, **substance abuse problems** $F(4, 182) = .87$, **marital problems** $F(4, 182) = .73$ and **positive feelings** $F(4, 182) = .17$. Therefore, the null hypothesis that there would be no significant differences across clinical placements could be accepted.

In summary, although the raw descriptive data suggested some differences in stress and psychological adaptation across clinical placements, when any confounding effects of the year of training were taken into account no significant differences were observed.

Overall, the profile of psychological adaptation among trainee clinical psychologists suggested that compared with normative data samples, this population were broadly comparable. However, particular areas of difficulty were in self-esteem problems, work adjustment problems,

depression and anxiety. Some dimensions of psychological adaptation varied across courses and year of training.

Phase 2. Cross-sectional correlations at time one between mediating and moderating appraisal, coping and social support variables, and psychological adaptation variables.

Phase two of the analysis strategy involved the examination, through correlational analyses of the relationship between appraisal, coping, social support and psychological adaptation. Given that phase one of the data analysis highlighted the importance of certain dimensions of psychological adaptation for trainee clinical psychologists, subsequent phases focused on these dimensions; namely self-esteem problems, work adjustment problems, depression and anxiety. In the first instance the hypothesis concerning appraisal and coping was addressed.

Hypothesis 1. Appraisals of less threat and greater control over course stresses will be associated with more approach coping and less avoidance coping.

To address this hypothesis, one-tailed Pearson correlations were computed between the appraisal variables and coping variables (Table 6).

Table 6. Pearson correlations (one-tailed) between appraisal and ways of coping ($N=183$).

Ways of Coping	Appraisals of threat ($N=179$)	Appraisals of control ($N=181$)
confrontative coping	$r=0.11$	$r=-0.03$
distancing	$r=0.13^*$	$r=-0.05$
self-controlling	$r=0.28^{***}$	$r=-0.03$
seeking social support	$r=0.18^{**}$	$r=-0.01$
accepting responsibility	$r=0.44^{***}$	$r=-0.12^*$
escape-avoidance	$r=0.49^{***}$	$r=-0.32^{***}$
planful problem solving	$r=0.29^{***}$	$r=0.04$
positive reappraisal	$r=0.16^*$	$r=0.11$

* $p<0.05$; ** $p<0.01$; *** $p<0.001$

Note. Discrepancies between the total N (183) and N in each computation is attributable to missing data.

The correlations between appraisals of course-related stressors and coping suggested mixed evidence for the hypothesis. Appraisals of greater threat were associated with significantly more approach coping (social support seeking, planful problem solving, positive reappraisal) and avoidance coping (escape-avoidance, distancing). Appraisals of greater control were associated with less avoidance coping (escape-avoidance), but not more approach coping. Therefore, appraisals of threat were associated with greater coping, both approach and avoidance. In contrast, appraisals of control were associated with only less avoidance coping. Overall, the correlations between appraisal and coping were low. The only relationships of moderate strength were between appraisals of greater threat and a tendency to cope through accepting responsibility and escape-avoidance.

In the final part of phase two, exploratory two-tailed Pearson correlations were computed at time one to examine the pattern and degree of relationship between the appraisal, coping and social support variables and the psychological adaptation variables (Table 7).

Table 7. Time one correlations between appraisal, coping and social support variables and psychological adaptation variables (two-tailed Pearson *r*, *N*=183).

		Psychological Adaptation Scales			
		self-esteem problems	work adjustment problems	depression	anxiety
Appraisal					
	threat	0.46***	0.61***	0.56***	0.56***
	control	-0.16	-0.47***	-0.34***	-0.29***
Coping					
	confrontative coping	-0.12	0.12	0.07	0.09
	distancing	0.08	0.11	0.10	0.09
	self-controlling	0.20**	0.15	0.22**	0.20**
	seeking social support	-0.01	0.14	0.01	0.21**
	accepting responsibility	0.41***	0.31***	0.36***	0.49***
	escape-avoidance	0.43***	0.47***	0.61***	0.61***
	planful problem solving	0.01	0.07	0.06	0.15
	positive reappraisal	0.09	0.02	0.10	0.13
Social support ^a					
	practical support from supervisor	0.11	0.16	0.08	0.04
	emotional support from supervisor	0.21**	0.28***	0.14	0.13
	practical support from course	0.01	0.23**	0.15	0.02
	emotional support from course	0.21**	0.33***	0.16	0.07
	practical support from other trainees	0.07	0.12	0.20**	0.11
	emotional support from other trainees	0.02	0.09	0.12	0.05
	practical support from home confidante	0.11	-0.02	0.18	0.07
	emotional support from home confidante	0.26***	0.01	0.21**	0.12

** *p*<0.01; *** *p*<0.001

^a Support refers to the discrepancy between ideal and actual support. Higher scores represent more dissatisfaction with support.

The results (Table 7) suggested several relationships between appraisal, coping, social support and psychological adaptation. First, in terms of appraisal, appraisals of threat were moderately and positively associated with self-esteem problems, work adjustment problems, depression and anxiety. Appraisals of control were negatively associated with work adjustment problems, depression and anxiety but were not significantly associated with self-esteem problems. Second, in terms of the coping variables, only two were moderately associated with all the psychological adaptation scales, namely accepting responsibility and escape-avoidance. Third, in terms of social support, dissatisfaction with emotional support from clinical supervisor and emotional support from the course were both positively and significantly associated with self-esteem problems and work adjustment problems. Dissatisfaction with practical support from the course was positively and significantly associated with work adjustment problems. Dissatisfaction with practical support from other trainees was positively and significantly associated with depression. Dissatisfaction with emotional support from a home confidante was positively and significantly associated with self-esteem problems and depression. All correlations between social support and psychological adaptation were in the low range, except emotional support from the course and work adjustment problems.

Phase 3. Multiple regressions of the mediating and moderating variables on key psychological adaptation variables.

Phase three involved computing a series of multiple regression analyses on the time one data to examine whether scores on the mediating and moderating variables (independent variables) could predict scores on each of the psychological adaptation variables in turn (dependent variables). Following Tabachnick and Fidell (1989), a mixed conceptual and statistical multiple regression analysis strategy was used. Four hierarchical regressions were computed to determine if background variables (age, gender and year of training), then appraisal variables, then coping variables and then social support variables predicted the variance in psychological adaptation. Four psychological adaptation variables, which had been important in this sample, were selected as the dependent variable in each regression analysis (self-esteem problems, work adjustment, depression and anxiety). Predictor variables were selected on conceptual and statistical grounds. Background variables were added as the first step, as these had been associated with

psychological adaptation, to control any confounding effects. The order of entry for the variables followed the order of influence predicted by Lazarus and Folkman's (1984) model. Therefore, appraisal variables were added in a second step, coping variables were added as a third step and social support variables were added as a fourth step. Only those cognition, coping and social support variables that correlated significantly ($p < 0.01$) were considered for entry into the equation. At each step of the equation, variables not contributing significantly to the equation were dropped. The final regression equations are shown in Table 8. Only variables that remained significant for the final equation, when all relevant variables had been added, are reported at each step. Reported Beta values are final equation values, not Beta values at each step.

These multiple regression analyses suggested that the appraisal, coping and social support variables predicted significant amounts of the variance in the psychological adaptation variables, ranging from 38 per cent of the variance in self-esteem problems to 58 per cent in work adjustment problems. Appraisals of threat, coping through accepting responsibility and dissatisfaction with emotional support from a clinical supervisor, the course and a home confidante all contributed significantly in the equation for self-esteem problems. Appraisals of threat and control, coping through escape-avoidance and dissatisfaction with emotional support from a clinical supervisor and the course all significantly contributed to the equation for work adjustment problems. Appraisals of threat, coping through escape-avoidance and emotional support from a home confidante all contributed significantly to the equation for depression. Finally, appraisals of threat and coping through accepting responsibility contributed significantly to the equation for anxiety. It is noteworthy that only a subset of the appraisal, coping and social support variables was consistently associated with psychological adaptation, namely appraisals of threat and control, coping through accepting responsibility and escape-avoidance and emotional support from the clinical supervisor, the course and a home confidante.

Table 8. Multiple regression analyses on psychological adaptation variables ($N=183$).

Dependent Variable	Step 1: Background variables. Mult. R & R ² .	Step 2: Appraisal. Beta, T, Mult. R & R ² .	Step 3: Coping. Beta, T, Mult. R & R ² .	Step 4: Social support ^a . Beta & T.	Final equation Mult. R & R ² .
Self-esteem problems	R=0.14 R ² =0.02	Threat 0.45 T=4.13*** R=0.47 R ² =0.22	Accepting responsibility 0.24 T=3.32** R=0.52 R ² =0.26	Emotional support from supervisor 0.15 T= 2.38* Emotional support from the course 0.11 T=1.67 Emotional support from home confidante 0.26 T= 4.12***	R=0.62 R ² =0.38
Work adjustment problems	R=0.43 R ² =0.18	Threat 0.50 T= 8.73*** Control -0.21 T=-3.41*** R=0.71 R ² =0.51	Escape-avoidance 0.18 T=2.82** R=0.73 R ² =0.53	Emotional support from supervisor 0.12 T= 2.32* Emotional support from the course 0.18 T=3.38***	R=0.76 R ² =0.58
Depression	R=0.14 R ² =0.02	Threat 0.55 T=8.60*** R=0.56 R ² =0.31	Escape-avoidance 0.44 T=6.73*** R=0.68 R ² =0.46	Emotional support from home confidante 0.15 T= 2.64**	R=0.69 R ² =0.48
Anxiety	R=0.14 R ² =0.02	Threat 0.55 T=8.69*** R=0.56 R ² =0.32	Accepting responsibility 0.13 T=2.00 Escape-avoidance 0.40 T=5.66*** R=0.70 R ² =0.48	No social support variables eligible for entry.	R=0.70 R ² =0.48

* $p<0.05$; ** $p<0.01$; *** $p<0.001$

^a Support refers to the discrepancy between ideal and actual support. Higher scores represent more dissatisfaction with support.

Phase 4. Longitudinal correlations between the time one mediating and moderating variables and time two psychological adaptation variables.

Phase four involved computing Pearson correlations between the time one appraisal, coping and social support variables and time two psychological adaptation variables (self-esteem problems, work adjustment problems, depression and anxiety) to address the hypotheses concerned with changes in psychological adaptation over time (Table 9).

Hypothesis 2. More approach and less avoidance coping will predict better psychological adaptation over time.

The evidence from the correlational analyses for this hypothesis was mixed (Table 9). Escape-avoidance at time one was significantly and positively associated with problems of psychological adaptation on all scales at time two. Distancing at time one was significantly and positively associated with psychological adaptation in terms of self-esteem problems at time two. Therefore, less avoidance coping (escape-avoidance and distancing) was associated with better psychological adaptation at time two. More approach coping at time one (seeking social support, planful problem solving and positive reappraisal) was not significantly associated with psychological adaptation at time two.

Hypothesis 3. Perceptions of course-based social support will have a greater function in predicting psychological adaptation over time than home-based social support.

The evidence from the correlational analyses for this hypothesis was mixed (Table 9). Satisfaction with practical support from the course at time one was significantly associated with psychological adaptation at time two in terms of work adjustment and depression, and satisfaction with emotional support from the course at time one was significantly associated with work adjustment at time two. However, support from a home confidante at time one was significantly and associated with all measures of psychological adaptation at time two.

Table 9. Correlations between the time one appraisal, coping and social support variables and time two psychological adaptation variables (Pearson *r*, *N*=167).

Appraisal, coping and social support at time one		Psychological Adaptation Scales at Time Two			
		self-esteem problems	work adjustment problems	depression	anxiety
Appraisal					
	threat ^a	0.37***	0.39***	0.41***	0.40***
	control ^a	-0.13	-0.22**	-0.08	-0.14
Coping					
	confrontative coping ^a	-0.09	0.14	0.10	0.09
	distancing ^b	0.17*	0.12	0.13	0.08
	self-controlling ^a	0.21**	0.05	0.14	0.10
	seeking social support ^b	-0.04	0.07	0.04	0.13
	accepting responsibility ^a	0.39***	0.20	0.27	0.37***
	escape-avoidance ^b	0.40***	0.36***	0.43***	0.38***
	planful problem solving ^b	0.06	-0.03	0.13	0.09
	positive reappraisal ^b	0.06	0.03	0.12	0.08
Social support ^c					
	practical support from supervisor ^b	0.07	0.07	0.08	0.01
	emotional support from supervisor ^b	0.11	0.06	0.06	0.07
	practical support from course ^b	0.08	0.18**	0.16*	0.10
	emotional support from course ^b	0.12	0.14*	0.05	0.08
	practical support from other trainees ^b	0.13	0.14*	0.23**	0.10
	emotional support from other trainees ^b	0.02	0.02	0.12	-0.02
	practical support from home confidante ^b	0.17*	0.16*	0.23**	0.16*
	emotional support from home confidante ^b	0.31***	0.23**	0.39***	0.27***

*

p<0.05;

**

p<0.01;

p<0.001

a

Two-tailed Pearson *r*'s are reported for these exploratory correlations.

b

One-tailed Pearson *r*'s are reported for these hypothesis-driven correlations.

c

Support refers to the discrepancy between ideal and actual support. Higher scores represent more dissatisfaction with support.

The exploratory correlational analyses in Table 9 suggested several further patterns of relationships between appraisal, coping, social support and psychological adaptation. First, in terms of appraisal, appraisals of threat at time one were significantly, positively and moderately associated with problems of adaptation at time two on all psychological adaptation variables. Appraisals of control at time one were significantly and negatively associated only with work adjustment at time two, although the magnitude of the correlation was low. Second, in terms of the coping variables, accepting responsibility was positively, significantly and moderately associated with self-esteem problems and anxiety, but not depression or work adjustment problems. Self-controlling at time one was significantly and positively associated with self-esteem problems at time two, although the magnitude of the correlation was low. Third, in terms of social support, dissatisfaction with practical support from other trainees at time one was associated with work adjustment problems and depression at time two.

In summary, these correlational analyses suggested that appraisals of threat and control and avoidance coping at time one were significantly associated with psychological adaptation at time two. In addition, a mixed picture was suggested for social support depending on the type of support considered (home or course-based) and the dimension of adaptation.

Phase 5. Path analyses to test the predicted pattern of relations between appraisal, coping, social support and psychological adaptation.

Phase five attempted to construct and test a tentative explanatory model of appraisal, coping, social support and psychological adaptation and to address further the two longitudinal hypotheses:

Hypothesis 2. More approach and less avoidance coping will predict better psychological adaptation over time.

Hypothesis 3. Perceptions of course-based social support will have a greater function in predicting psychological adaptation over time than home-based social support.

The explanatory model and hypotheses were tested using path analysis in the structural equation modelling software (EQS) developed by Bentler and Wu (1995). Path analysis involves a series of regression equations that model direct and indirect pathways between predictor and outcome variables (Aldwin, 1994). It is a multivariate regression-based statistical procedure that enables the examination of different sets of relationships in the path between predictor variables and outcome variables. The statistical procedure computes a series of regression equations. The sizes and directions of regression coefficients, with and without certain variables entered into the equations, are examined to derive the minimum number of relationships that explain the maximum amount of the variance in the outcome variable (Tabachnick and Fidell, 1989). The Comparative Fit Index (CFI) was used as a goodness of fit index because it takes into account both the degrees of freedom within the model and the sample size.

The path analyses were built using a conceptual and empirical model. The conceptual basis for defining the path analyses was transactional theory, namely appraisal → coping → time one adaptation → time two adaptation. The social support variables were conceptualised as moderating these relationships. It was hypothesised that time two psychological adaptation would be mediated through time one adaptation (See Figure 2 to 5). The empirical basis was phase one to phase four of the data analyses. This suggested particularly important subsets of the appraisal (threat, control), coping (escape-avoidance, accepting responsibility), social support (satisfaction with emotional support from clinical supervisor, the course and home confidante) and psychological adaptation variables (self-esteem problems, anxiety, depression, work adjustment problems).

Each path analysis was computed in the first instance using the subset of significant variables suggested from the cross-sectional and longitudinal correlation analyses. Iterative analyses were then computed to remove non-significant variables and derive the minimum number of significant relationships that explained the maximum variance in the outcome variable. This was achieved by examining change parameters (Lagrange Multiplier Test, Dunn, Everitt and Pickles, 1993) to drop, change or add direct or indirect relationships between variables in the model. All parameter estimates for variables in the final measurement model were significant at the $p < 0.05$ level. Refinements of the measurement model were continued within the conceptual constraints

outlined above.

The resulting path diagrams are shown in Figures 2 to 5. All CFI's were >0.9 , suggesting that the path diagrams provided an adequate fit to the data (Bentler and Wu, 1995). The CFI's for anxiety (1.00) and depression (0.97) suggested good fits to the data. In relation to the hypothesis that more approach and less avoidance coping would predict better psychological adaptation over time, the path analyses provided partial support. Trainees using more avoidance coping did experience more problems of self-esteem, depression, anxiety and work adjustment over time. On empirical grounds no approach coping strategies were considered eligible for entry into the analyses.

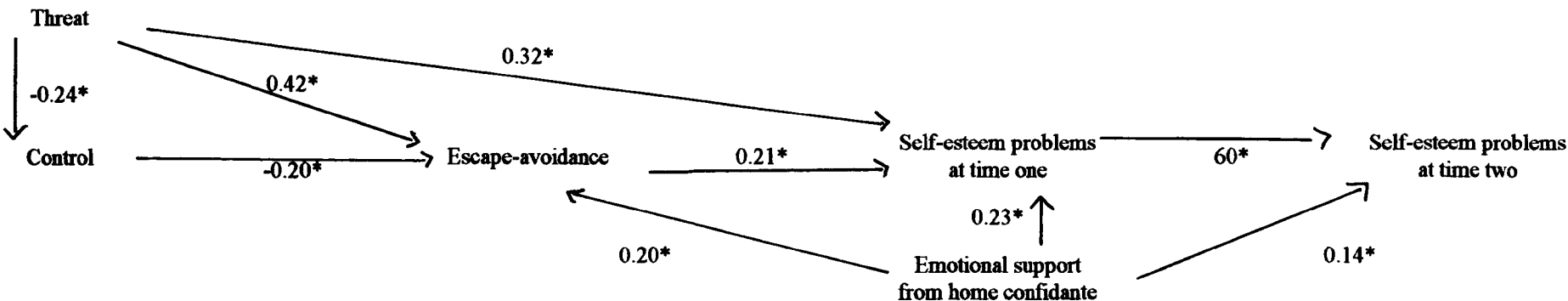
How do the path diagrams inform our understanding of how trainees' psychological adaptation is affected by appraisal, coping and social support? In terms of psychological adaptation, the models were different for trainees' inner world (self-esteem, anxiety and depression) and trainees' manifest experience at work (work adjustment). **For trainees' inner worlds**, appraising the course stressors as threatening and controllable, coping through escape-avoidance and dissatisfaction with emotional support from a main confidante influenced self-esteem, depression and anxiety over time. Specifically, seeing the stressors of the course as threatening was related to whether these stressors were felt to be controllable, and was directly related to cognitive and behavioural efforts to escape and avoid the stressors and their effects. Furthermore, seeing the stressors of the course as threatening was both indirectly related to psychological adaptation through appraisals of control and avoidance coping and directly related to psychological adaptation. As predicted in transactional theory, avoidance coping mediated the relationship between how trainees appraised the stressors of the course and how they adapted psychologically. Finally, feeling that one had an emotionally supportive partner, close friend or relative moderated psychological adaptation both indirectly, through less avoidance of the stressors and their effects, and directly shielding the person against problems of psychological adaptation. Interestingly, emotional support at home did not significantly shield the person from anxiety directly, but indirectly through helping the person to use less avoidance⁷.

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Work-based social support was entered in these path analyses, but goodness of fit indices and path parameters suggested that work-based social support did not contribute significantly to the model.

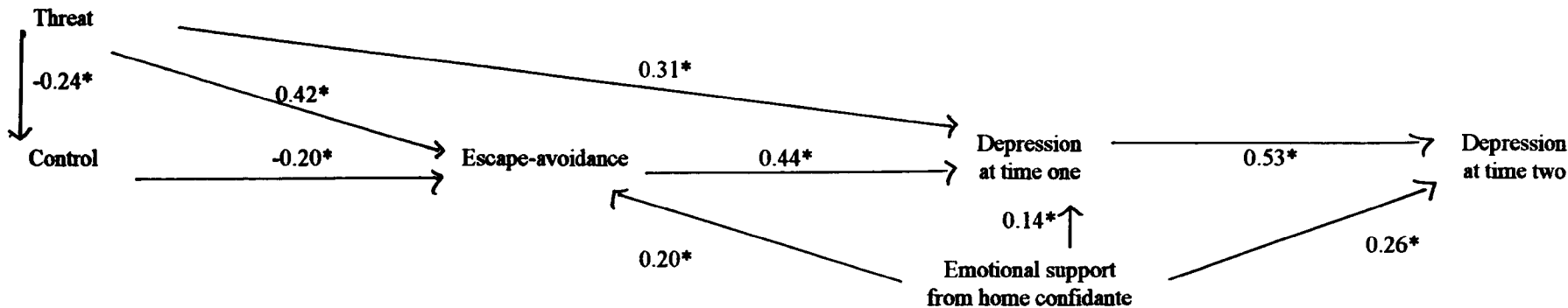
For trainees' manifest experience at work (work adjustment) the relationships were the similar for appraisal, coping, emotional support from a confidante at home and psychological adaptation. However, they were different for trainees' experience of being supported by their clinical supervisor and the course as a whole. Here, emotional support from the supervisor helped trainees use less avoidance coping, which in turn mediated work adjustment at time one and two. Emotional support from the course helped trainees feel that the stressors of the course were controllable, which in turn mediated work adjustment both at time one and one year later. This suggested mixed and qualified support for the hypothesis that perceptions of course-based social support would have a greater function in predicting psychological adaptation over time than home-based social support. The longitudinal correlations and path diagrams both suggested that course-based social support moderated trainees' manifest work adjustment problems, but that home-based social support moderated psychological adaptation more broadly for self-esteem problems, anxiety, depression and work adjustment problems.

Figure 2. Path analysis for self-esteem problems ($N=166$).



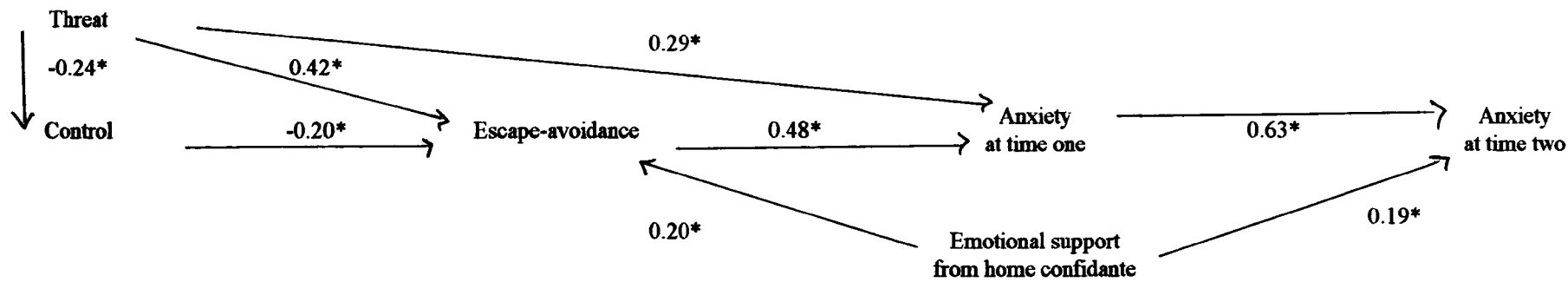
Note. Numbers with asterisks are significant structural path coefficients.
Note. Comparative Fit Index 0.92

Figure 3. Path analysis for depression ($N=166$).



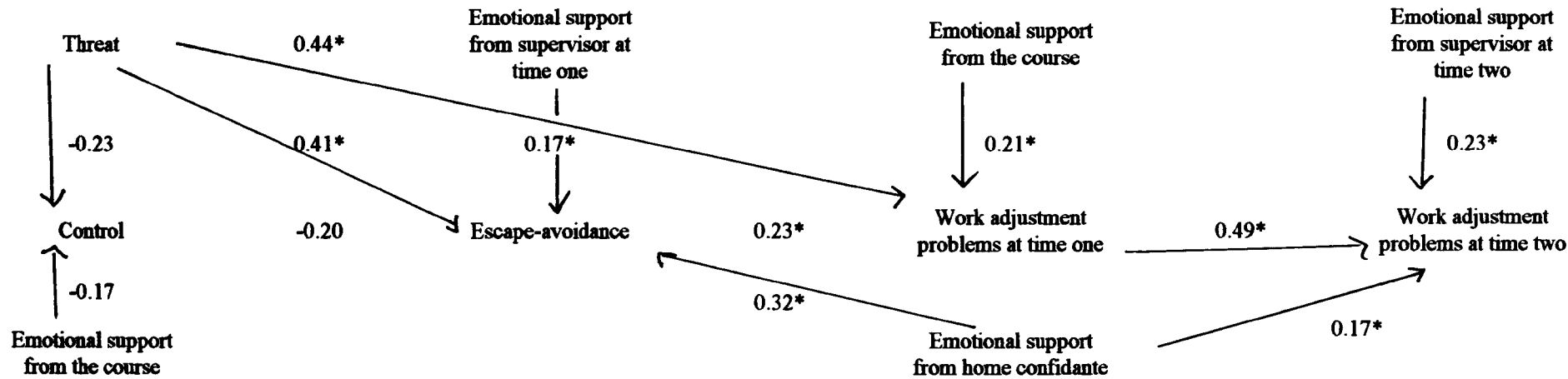
Note. Numbers with asterisks are significant structural path coefficients.
Note. Comparative Fit Index 0.97

Figure 4. Path analysis for anxiety ($N=166$).



Note. Numbers with asterisks are significant structural path coefficients.
Note. Comparative Fit Index 1.00

Figure 5. Path analysis for work adjustment problems ($N=166$).



Note. Numbers with asterisks are significant structural path coefficients.
Note. Comparative Fit Index 0.92

DISCUSSION

The discussion considers each research question and hypothesis, before considering the relationship between the theory and findings as a whole. Provisional explanations for the findings are considered and caveats on these explanations outlined. From this overview of the theory and findings, implications for clinical psychology are critically examined. Finally, the difficulties with the literature overall, and this study in particular are considered and ways forward suggested.

What is the profile of stress and psychological adaptation in trainee clinical psychologists?

An answer to this question can be reached through tentative comparisons of the findings with studies using comparable populations and methodology⁸. Comparisons suggested that while trainee clinical psychologists report relatively high levels of perceived stress (compared with a large stratified sample, Cohen and Williamson, 1988), as a group they do not report extensive problems of psychological adaptation (Anton and Reed, 1994). Trainees' psychological and social functioning at work and home (Anton and Reed, 1994) were in the normal range. Although an overall picture of psychological adaptation emerged, the findings suggested that more than 25 per cent of trainees *were* experiencing difficulties, particularly in terms of self-esteem, work adjustment, depression and anxiety. Therefore, in Lazarus and Folkman's (1984) definition of psychological adaptation, few trainees were experiencing problems in social functioning, but significant numbers were experiencing difficulties in morale. Although this work does not enable any definitive statements about rates of global distress among trainee clinical psychologists, the findings contrast with those of earlier studies suggesting high rates of global distress among mental health professionals (e.g. Cushway, 1992; Guy *et al.*, 1989; Looney *et al.*, 1980; Norcross and Prochaska, 1986). Possibly breaking down concepts such as 'psychiatric caseness' into dimensions of psychological adaptation enabled a more holistic assessment.

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This demands consideration of the nature of the population and the measures used. Clinical psychology trainees are typically in their late 20's, female, with at least 15 years of education. As yet no findings have been published with *directly comparable* populations for the EAPI scales (Anton, personal communication, 1997) or WHOQOL scales (WHOQOL Group, submitted). However, the EAPI standardisation sample comprised employed adults, including many comparable to trainee clinical psychologists in age, gender and education. In addition, regressions of demographic variables on psychological adaptation variables in the current and standardisation sample suggested that scale variance accounted for by demographic variables was low (Anton and Reed, 1994). Therefore, although comparisons with the standardisation sample should be cautious, they can be justified.

Following up the trainees who were experiencing difficulties at time one suggested that many who experienced difficulties at the beginning of the first and second years of training continued to experience difficulties one year later. There are several possible explanations for this. First, the life circumstances of this group may have been enduringly stressful in some way (e.g. trainee - course mismatch). Second, a personality dimension such as 'neuroticism' or 'negative affectivity' (Bolger and Schilling, 1991; Watson and Clark, 1984) may underlie ongoing difficulties. The EAPI anxiety scale shows moderate to high concurrent validity with trait anxiety measures (Anton and Reed, 1994), adding weight to this possible explanation. Third, some alternative factor may make certain individuals more vulnerable to problems of psychological adaptation during clinical psychology training. It is instructive to consider the subgroups of individuals who were experiencing difficulties. Forty-two per cent of men reported substance abuse problems and tended to use less approach (specifically social support seeking) and more avoidance coping (specifically distancing) than women. This finding replicated Freudenberger's (1987) work with male therapists. He argued that male therapists struggle with particular personal issues that may manifest themselves in mental health problems and substance abuse (Freudenberger, 1990). Men are in a minority in British Clinical Psychology, and it is possible that the avenues of available coping and support are experienced as less accessible to male than female trainees. In addition, significant differences were found across training courses in trainee clinical psychologists' work adjustment and depression. The data could not suggest any firm explanation, although the exploratory analyses suggested that the size of the course (defined as the number of trainees on a course) was not associated with psychological adaptation. Possible alternative explanations include courses' selection criteria, staff-trainee ratios, support structures, examination procedures and training models. The response rate, the sizes of the differences and the fact that the pattern of differences was stable across courses suggested that these differences were real and warrant further enquiry.

Over time, trainees experienced significant increases in stress, work adjustment problems, depression, interpersonal conflict and significant decreases in positive feelings. When changes in psychological adaptation were related specifically to the year of training, changes were largely from year one to two. In relation to trainees' clinical placements, the descriptive statistics suggested several patterns of psychological adaptation. However, it was found that the year of

training rather than placement *per se* accounted for the differences. Possible explanations for these findings include (1) a change in attitude from a hopeful and perhaps idealistic view of clinical psychology training to an acceptance of the realities of training and working as a clinical psychologist in the health service, (2) an adaptation to 'trainee identity,' and the losses associated with this, (3) increasing actual stressors (e.g. examinations, academic deadlines, more challenging clinical work and work environments) (Aldwin, 1994) and (4) accumulated 'spillover' of the effects of stressors into later stages of training (Bolger, DeLongis, Kessler *et al.*, 1989). There are at least three caveats to these findings and explanations. First, trainees responded at the beginning of each year. Changes may therefore reflect the stressors associated with the year transition (e.g. placement changes and academic deadlines) rather than year of training *per se*. Second, sixteen trainees chose not to participate at time two. Although their psychological adaptation at time one did not differ significantly from trainees who did chose to participate, the changes over time may reflect this drop out through some unmeasured variable. Third, these findings provide snapshots, not fine-grained tracking of developmental changes throughout training.

The role of appraisal, coping and social support

Making sense of the stressors: the role of appraisal

The first research hypothesis was supported in part. Appraisals of greater threat were associated with more coping, both approach (social support seeking, planful problem solving and positive reappraisal) and avoidance (escape-avoidance and distancing). In contrast, appraisals of greater control were associated with less avoidance coping (escape-avoidance), but not more approach coping. The only relationships of moderate strength were between appraisals of greater threat and a tendency to cope through accepting responsibility and escape-avoidance. The path analyses suggested that avoidance coping mediated the relationship between appraisals of threat and control and psychological adaptation. In contradiction to transactional theory (Lazarus, 1993), the path analyses suggested a direct pathway between appraisals of threat and problems of psychological adaptation.

How can these findings be explained? In transactional theory Lazarus and Folkman (1984) argue that appraisal is influenced by situation factors (e.g. the novelty, uncertainty, ambiguity and timing of situational demands) and person factors (e.g. belief systems). In terms of situation factors, clinical psychology training involves many novel, uncertain and ambiguous situations such as new placements and therapy with people with complex presenting problems.

In terms of person factors, cognitive theories of the emotional disorders can inform our understanding (Power and Brewin, 1991; Teasdale, 1997; Williams, Watts, MacLeod and Mathews, 1997). There are several emergent strands in theories of cognition. Cognition is multi-level (from preconscious and automatic to conscious and strategic), multi-system and modular, with information processed in parallel and/or sequence. Appraisal processes may draw on preconscious and conscious processes, and across cognitive systems in a modular fashion. Experimental evidence suggests that emotional states such as anxiety and depression affect the processing of emotional information (See Williams, Watts, MacLeod and Mathews, 1997). Specifically, people who are anxious show a preconscious automatic selective attention bias to emotionally threatening material and people who are depressed show an over-general memory bias (Kuyken and Dalgleish, 1995; Mathews and MacLeod, 1985; Mathews, Richards and Eysenck, 1989). Negative affectivity has been associated with a hyper-vigilant, ruminative and introspective cognitive style, and increased reactivity to stressors (Bolger and Schilling, 1991; Jerusalem, 1990; Watson and Clark, 1984; Watson and Pennebaker, 1989). These information processing biases may inhibit appropriate appraisals and obstruct appropriate formulation of problems and solutions. Thus, trainees who score higher in negative affectivity may be hyper-vigilant to the stressors of the course, and respond with a ruminative and introspective cognitive style, which has been linked in other contexts to onset and duration of affective disorders (Nolen-Hoeksema, Morrow and Fredrickson, 1993). While this explanation may account for consistency over time in trainees' problems of psychological adaptation, and the moderate to high associations between threat and psychological adaptation both cross-sectionally and longitudinally, the findings are not definitive. Concurrent assessment of negative affectivity and psychological adaptation in a multi-wave longitudinal study would be needed to address this explanation for this population.

Managing the stressors: the role of coping

There was partial support for the second research hypothesis. Trainees who used less avoidance coping tended to adapt better over time. However trainees who used more approach coping did not report significantly better psychological adaptation over time. How can these findings be explained? As predicted by transactional theory (Lazarus, 1993), the path analyses suggested that avoidance coping mediated the relationship between trainees' appraisals of course stressors as threatening and uncontrollable and problems of psychological adaptation. Furthermore, this was consistent with previous findings across a range of situations and populations (e.g. Suls and Fletcher, 1985; Valentiner *et al.*, 1994). In clinical training, avoidance coping, used as a consistent strategy, may interfere with adaptation and lead to emotional numbness, intrusions of threatening material and lack of awareness (Roth and Cohen, 1986).

However, there was no evidence for an association between approach coping and better psychological adaptation. Within transactional theory, approach coping is helpful when stressors are manageable (Folkman, 1984). Given that at least some stressors of clinical psychology training are manageable, the theory would predict that appropriate approach coping would be associated with better psychological adaptation. There are several possible explanations for the failure to demonstrate this relationship. First, the conceptualisation of coping adopted for this study (Figure 1; Joseph, submitted) was not adequately addressed by the coping assessment. Although the scale 'escape-avoidance' assesses both emotional and problem avoidance, no single scale assessed these overarching dimensions of approach coping. This suggests the need for alternative measurement scales in subsequent work. Second, the conceptualisation of coping may be wrong. Although avoidance may be one end of the dimension, perhaps an alternative way of understanding its alternative is needed. Third, most measures of psychological adaptation used in this study were assessing problems of psychological adaptation. It may be necessary to include more scales of 'adaptation' and 'learning' (denoted positively) to evaluate any effects of approach coping. Finally, the time frame of one year, assessing trainees at the beginning of each year of training, may evaluate particular stressors and stages of training where approach coping is less appropriate, such as ending placements.

Feeling supported at home and at work: the role of social support

The hypothesis concerned with social support was not upheld; that is to say the path analyses suggested that course-based social support did not have a greater function in moderating psychological adaptation over time than a main confidante at home.

How can these findings be explained? This work differed from much previous work in two respects that enabled an advance in our understanding of the role of social support. First, by including a multi-dimensional profile of psychological adaptation, the work suggested that for trainee clinical psychologists home-based social support was associated with the full spectrum of psychological adaptation over time. However, work-based social support was associated principally with trainees' satisfaction with their work over time. Second, the use of path analyses enabled the modelling of direct and indirect relationships between appraisal, coping and social support.

The path analyses tentatively suggested that home-based social support moderated trainees' psychological adaptation both indirectly (through reducing avoidance coping) and directly. This was consistent with previous research suggesting the importance of a close confiding relationship in protecting people from depression (Brown and Harris, 1978) and other problems of psychological adaptation (See Thoits, 1995). Having an emotionally supportive partner, friend or relative at home might serve the function of providing '*a secure psychological base from which the individual can reemerge to meet the ... challenges*' of training (Harter, 1996; p.19). This explanation is consistent with the finding that emotional support appeared to serve the function of reducing avoidance coping. In fact for anxiety, emotional support did not moderate adaptation at time one directly at all, only indirectly through avoidance coping. The path analyses suggested that work-based social support moderated trainees' work adjustment both indirectly (through enhancing appraisals of control and reducing avoidance coping) and directly.

There are several caveats to interpreting these findings. First, the distinction between home-based and work-based social support may be oversimplified. In an interesting study using data from diaries, Bolger *et al.* (1989) found evidence that suggested that the effects of stressors

on psychological adaptation could carry across persons, role domains and stages of life. Second, satisfaction with social support does not exist as a unitary factor in a vacuum. As Pierce *et al.* (1996) argue '*situational, interpersonal and intrapersonal processes ... shape individuals' perceptions of their social interactions with the significant people in their lives*' (p.444). These processes were beyond the scope of this research, and their influence cannot be definitively established. This suggested a third caveat. The measures of social support used in this work were concerned with *perceived support*. This is different from personal resources (the ability to build, use and maintain social relationships) and different from actual available social support. Evaluation of these would require further work.

How can the general inform the particular and the particular inform the general?

How could the theory and findings shed light on my experience of training?

First, I could identify many ideas from this work in my experience. For example, the dimensions of self-esteem, anxiety, depression and work adjustment were salient for me. The concepts in transactional theory also seemed relevant; the academic deadlines presented both internal demands (a perception of the staffs' high standards against which I would be judged) and external demands (producing the work) {the stressor and my appraisal of the stressor}. I tried to change my thinking, got on with the work and sometimes cut myself off when everything felt overwhelming {approach and avoidance coping}. I became aware of how much my wife's support meant to me {social support}. I experienced the full spectrum of emotions {psychological adaptation}.

Furthermore, these ideas did seem to describe and explain '*the symphony of my experience.*' For example, the first academic assignments did not cause me to become unmanageably anxious because in an important sense I could take control by putting in the work. In terms of a cycle of 'appraisal - coping - adaptation,' I felt more than once, '*it only takes one thing to go wrong and everything gets too much.*' When I was feeling low, clinical and academic work seemed more scary and unmanageable and sometimes I felt like escaping.

How could my experience shed light on the theory and findings?

First, my experience seemed to me somehow richer, as if it wanted to burst through the limiting confines of the theory. The concepts were merely ideas, notions, beliefs. Nevertheless, for me, my experience somehow brought the explanatory model to life by fleshing out the bare bones of the concepts. For me the concept of appraisal included '*PTSD-like intrusive memories*,' coping included self-talk '*the course is pass - fail, get the academic work into perspective Willem*,' social support included my wife's help in getting perspective on difficult and upsetting situations, psychological adaptation included being like '*a bear with a sore head*.' Yet examining my own experience suggested some concepts overlapped. For example an internal stressor could also be an appraisal "*plagued by thoughts of 'are they (the essays) good enough?'*"

Second, for the most part I think that my morale, social relationships and work adjustment were OK. Yet, there were periods during training, often lasting weeks or months (e.g. during '*a placement from hell*,' writing up this dissertation) when *internally* I was troubled. If I had been a participant in this study, however, these periods and processes would probably not have been assessed both because of the study's timing and because *externally* I was managing. Third, many experiences that I found stressful were time-limited and therefore sometimes involved simply '*riding out the storm*' (e.g. a difficult placement). In these situations avoidance was adaptive.

Fourth, other processes and outcomes were going on. The context for any given stressful experience was crucial to how I thought, felt and behaved. Also, when I think about my experience, and compare it with friends in my year group, I am struck that we did not all have the same experience. Who we were, our personalities, seemed to affect how we handled and experienced the training. Finally, the support I received from my wife was invaluable both because it helped me simply say what had happened and express how I was feeling, but also because it helped me gain perspective and think through appropriate ways of handling situations.

The circle of science: theory ↔ findings

This study suggests evidence for aspects of transactional theory (Lazarus, 1993), namely

the 'appraisal - coping relationships' and 'coping - psychological adaptation relationships' over time. In several respects the theory was falsified (e.g. conceptual overlap) and in others required elaboration (e.g. the role of social support). In considering how the theory could be explained and elaborated by my personal experience, it seemed limited. Lazarus (1991) has elaborated transactional theory by outlining the possibility of a match between a stressor that has high relevance to a person's life goals, threatens to block their achievement and thereby affects self-esteem. Given that training as a clinical psychologist demands considerable devotion and persistence, the personal investment in training is high. Any threat to succeeding (e.g. constant evaluation), therefore, has high personal relevance for trainees and may explain the finding that self-esteem, anxiety and depression are particularly affected in this group.

Salkovskis (1996; 1997) has suggested a cognitive theory of anxiety disorders that may further explain the findings. Its strength over transactional theory is its incorporation of further evidence from the cognitive psychology of the emotional disorders. He suggests that threat beliefs and avoidance behaviour maintain each other, leading to hyper-vigilance to threat. Once this cycle is set up, opportunities to evaluate fears are lost and so anxiety is maintained.

Explanations and implications for clinical psychology training

The findings are discussed at three levels, the trainee clinical psychologist, clinical psychology training courses and the clinical psychology profession. Some tentative implications are drawn out and discussed.

I. Trainee clinical psychologist.

Training as a clinical psychologist involves an evolution of professional self from a pre-training professional identity (e.g. assistant psychologist, worker in a therapeutic community) to the professional identity of 'clinical psychologist.' Both Cherniss' (1980) theory of work stress and Lazarus and Folkman's (1984) transactional theory propose that this involves a transaction between the stressors of training and the person's appraisal of and coping with these stressors. This transaction, it is argued, determines both the person's psychological adaptation and evolution

of professional identity.

The stressors of training are diverse and manifold (See Introduction). What sense does the person make of these stressors? Appraisals of threat and lack of control might include fears about being overwhelmed, fears about appearing incompetent, and thinking that nothing can be done to change the situation. Trainees may fear that admitting vulnerability or distress might lead to loss of status, poor evaluations, possible course failure and becoming the 'patient.' As one participant remarked, *'There is a great pressure to be seen to be coping and doing well.'* This transaction between stressors and appraisals of threat and lack of control creates a state of distress and incongruence that requires some form of psychological adaptation. Beardslee (1989) argues that reflection (reappraisal) and action congruent with this reflection (appropriate coping) can lead to the development of wisdom, learning and psychological adaptation. The stressors and the experiences they produce are thought about and acted upon in a way that can be beneficial to creating a personal and professional identity. The path analyses suggested that emotional support from a home confidante, clinical supervisor and the course can moderate appraisals of control, avoidance coping and psychological adaptation. Supportive relationships at home and at work may enable trainees to talk about their thoughts, feelings and experiences, and thereby understand them in terms other than an amorphous *'I am stressed'* or *'training is stressful.'*

Implications for trainee clinical psychologists

- ▶ Physician heal thyself: practising what we preach. Trainee clinical psychologists work with people who have self-esteem problems, anxiety and depression. The theoretically grounded and empirically substantiated understandings and psychological interventions for these difficulties are as likely to help clinical psychologists in training as they are their clients. There are many possible examples, from using a range of relaxation exercises to life style changes to seeking therapy.
- ▶ Building and using social support. The findings suggested that three sources of social support were related to appraisals of stressors, avoidance coping and psychological adaptation. Emotional support from a home confidante (i.e. a spouse, partner, close friend or relative) might be particularly important in reducing unhelpful avoidance coping and problems of psychological adaptation. Emotional support from clinical supervisors and the

course (clinical tutor, personal tutor, support group, course staff) appear to moderate appraisals of control and reduce work adjustment problems directly.

II. Clinical psychology training.

From the perspective of clinical psychology training courses, the responsibilities, demands and challenges are considerable. Understanding the difficulties that trainee clinical psychologists experience enables courses to adapt themselves to promote optimal working environments (Lamb *et al.*, 1991; Schwebel *et al.*, 1994). This study raises some fundamental questions about how best to help trainees cope effectively so that they can develop and adapt to the demands of training, and thereby maintain current high pass and service retention rates (Lavender, Rolleston and Thompson, in press). The findings suggested that trainees' perceptions of emotional support from the course and from their clinical supervisor are significantly associated with both self-esteem and work adjustment. The path analyses further suggested that emotional support from clinical supervisors and the course moderate trainees' appraisal of stressors, coping with stressors and work adjustment.

The findings have several implications for clinical psychology training courses. It is acknowledged that many clinical psychology training courses already have these structures and processes in place.

Implications for clinical psychology training

- ▶ **Selection.** The findings tentatively suggested that trainees' ways of appraising and coping with course stressors tend to be moderately consistent over time and are associated with psychological adaptation over time. At selection, mindfulness of how the person has coped with stressors similar to the course or the selection procedure might help gauge how they will adapt to the stressors of the course. However, the situational demands of an interview situation are unique and therefore might elicit unique coping responses.
- ▶ **Workshops on the stressors of training as part of the teaching programme.** Discussion about course stressors could discourage the use of avoidance coping, encourage the use of social support resources and facilitate mutual support among trainees. If such

workshops are facilitated responsively to trainees' needs, this might enhance appraisals of control over course stressors and develop a culture of growth and development (Aldwin, 1994). However, such workshops might also increase appraisals of threat, and lead to cognitive and behavioural avoidance.

- ▶ Identifying trainees experiencing significant difficulties of psychological adaptation. Trainees experiencing significant personal distress may find that their work is adversely affected (Garfield and Bergin, 1971; Guy *et al.*, 1989). Courses and supervisors need systems in place to identify these trainees or enable these trainees to identify themselves so that support and remediation can be provided (Lamb *et al.*, 1991).
- ▶ Integration of emotional support into clinical supervision. Clinical supervisors' emotional support appears to moderate work adjustment adaptation directly and indirectly through helping the trainee develop adaptive ways of coping.
- ▶ Integration of emotional support into the course structures and processes. Formal and informal systems that promote trainees' perceptions of emotional support from the course are likely to enhance trainees sense of control over their training and increase their work satisfaction. Thoits (1995) has argued that the important components of this type of support are encouragement, validation and warmth.

III. Clinical psychology profession.

For clinical psychology, understanding the psychological adaptation of psychologists and responding to their identified needs is likely to shape the profession as a whole in a positive way (Sherman, 1996). The findings relating to self-esteem are particularly interesting when considered with findings that professional self-doubt is also an important issue for qualified clinical psychologists (Cushway *et al.*, 1996). There are at least three explanations. First, people with self-esteem problems may be attracted to the profession to resolve their problems through their professional practice (Sherman, 1996). Second, the profession as a whole is young and small compared with more established health professions. In a health service climate of continual change and service evaluation, the profession is in the vulnerable position of continually asserting and proving its worth both to allied health professionals and commissioners of clinical psychology services (Smail, 1993). This represents a threat to the profession as whole, which may be reflected

in the self-esteem of individual clinical psychologists. Third, there may be aspects of the work of clinical psychologists that are intrinsically threatening to self-esteem, such as multi-disciplinary work in a model of work evolved by and for other professions (Cushway *et al.*, 1996).

Implications for clinical psychology

- ▶ Further research. If the profession is to take an interest in the psychological adaptation of its members and the factors that mediate and/or moderate this, further research is needed. This study raises questions about the psychological adaptation of psychologists, particularly in relation to internalising problems such as poor self-esteem, anxiety and depression. Furthermore, the differences in the psychological adaptation of trainees over time and on different courses warrant further enquiry.

Conceptual, methodological and statistical critique: Ways forward

The difficulties with the literature overall, and this study in particular are considered. Ways in which these difficulties might be addressed in further work are suggested.

Conceptual issues

First, as argued in the introduction, attempts to falsify the research hypotheses enabled *provisional explanation* of relationships between appraisal, coping, social support and psychological adaptation. It does not enable *definitive causal* conclusions.

Second, although the concepts were defined and operationalised, it is acknowledged that this is an incomplete and ongoing task. What can be learned from the definitions and operationalizations used in this work? This work suggests useful distinctions between coping, coping resources, social support and social resources. For example, there is overlap between coping scales concerned with 'seeking social support,' social support scales and measures of psychological adaptation concerned with social adaptation. One possible way forward is to begin to integrate in carefully designed and bounded research, idiographic, nomothetic, qualitative and quantitative research methods (Miles and Huberman, 1994). In this way, the sum of the parts of

a study would enable the whole to emerge more clearly. For example, qualitative examination of stressful episodes could enable a consideration of questions, such as how much overlap is there between the concepts and are some concepts super- / sub-ordinate? (Dey, 1993). This could set the stage for clearer definition and operationalization of concepts in research into the 'stressor - adaptation relationship.'

Methodological issues

First, several measures used in this research have not been widely used (social support and psychological adaptation measures). This limits comparisons with earlier studies using different measures. Furthermore, picking up on the point made in the introduction, the coping scales are not all conceptualised at the same level. The fact that the scale escape-avoidance was consistently associated with psychological adaptation cross-sectionally and longitudinally may reflect that it is higher-order (Figure 1). This may also explain why the hypothesised relationships for approach coping were not found. There is a need for measurement scales that take into account the conceptual level, direction and focus of coping.

Second, answers are needed to the question of whether appraisal and coping are transactional or personality based, or represent process and structure. If personality / coping styles and appraisal and coping processes are complementary (Krohne, 1996), this has implications for measurement. If the coping processes are studied without acknowledging personality, relationships between coping and adaptation may be an epiphenomenon of personality. This study operationalised appraisal and coping in relation to the stressors of the course as a whole. It is acknowledged that this was a broad brush approach. Addressing this problem in future work requires the simultaneous assessment of personality and transactional processes in relation to hassles, life events and chronic stressors.

Statistical issues

Arising from these conceptual and methodological issues are related statistical issues. First, the statistical procedures based on correlational analyses may have been confounded by

common method variance (the exclusive use of self-report questionnaire measures yielding inflated measures of association between variables). However, appraisal, coping and psychological adaptation are subjective concepts. Therefore, arguably, subjective self-report ratings are the most valid and reliable way of collecting this information, albeit at some cost to common method variance. Nonetheless, it is important to interpret findings and *the degree of relationships* with respect to common method variance.

Second, given the overlap between some of the concepts that have been considered as predictor and psychological adaptation variables, there is likely to have been a degree of inter-correlation between variables assumed to be independent. This can cause problems of multi-collinearity in multivariate statistics. However, although multi-collinearity checks suggested this was within acceptable ranges, further work could address this issue at the design stage.

Research in this area is dogged by conceptual, methodological and statistical issues. A new generation of research is needed if these issues are to be addressed. This research would use a mixture of methods, integrated so that statistical innovations will enable complex questions to be addressed in a meaningful way. Multi-wave pre-training, during training and post-training studies using idiographic and nomothetic approaches both qualitatively and quantitatively are needed to address the complex questions arising from this research.

Summary and conclusions

This study sought to profile the psychological adaptation of trainee clinical psychologists across three years of training, and examine how appraisal, coping and social support mediate or moderate psychological adaptation over time. Trainees appeared for the most part to cope with considerable demands and challenges in a resilient and adaptive way. However, a significant subgroup reported self-esteem problems, work adjustment problems, depression and anxiety. Gender, age, year of training and training course were related to psychological adaptation. Furthermore, appraisals of threat and control were related to coping, both approach and avoidance. A series of path analyses suggested that avoidance coping mediated the effects of appraisals of threat and uncontrollability on psychological adaptation. Social support, particularly

from a confidante at home moderated this relationship, both directly and indirectly by reducing avoidance coping. Social support from the training course and clinical supervisors moderated work adjustment, both directly and indirectly by enhancing a sense of control and reducing avoidance coping.

Recent research has only started to focus on the psychological adaptation of trainee clinical psychologists through a wide angle lens. Many questions remain, that will require focussing in on why particular stressors and courses affect particular trainee psychologists in particular ways. For me, training was at various times frightening and painful. What ultimately helped was having a supportive partner and being on a course that helped me think about it all differently, supported me in taking risks and did not allow me to avoid difficulties. With the benefit of hindsight, these helped me to adapt, develop and learn.

Still, what does this achieve? Like a stone dropped into the middle of a pond, it ripples out into the creation of trainee and novice practitioners who possess a sense of their integrity, see things as they are, tolerate uncertainty and undertake their work with commitment and enjoyment. In turn, this will shape the profession in a positive way and benefit clinical psychologists' clients.

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Appendix 1. Appraisal questionnaire.

Take a few moments and think about the demands and stresses of the course **over the last month**. We would like you particularly to think of any situations that were difficult or troubling, either because you felt distressed about what happened, or because you had to use considerable effort to deal with the situation. Bearing any demanding or stressful situations on the course in mind, read each statement below and consider how you have tended to appraise them. Please indicate to what extent each applies to you, from "Not at all" (1) to "Very much" (5).

	Not at all or does not apply (1)	A little (2)	Somewhat (3)	A moderate amount (4)	Very much (5)		
1.	To what extent have you felt you had control over the stresses of the course?		1	2	3	4	5
2.	To what extent were the stresses of the course something you could change or do something about?		1	2	3	4	5
3.	To what extent were the stresses of the course something you had to accept?		1	2	3	4	5
4.	To what extent were the stresses of the course something in which you needed to know more before you could act?		1	2	3	4	5
5.	To what extent were the stresses of the course something in which you had to hold yourself back from doing what you wanted to do?		1	2	3	4	5
6.	To what extent have you thought you might lose the approval or respect of someone important to you because of the stresses of the course?		1	2	3	4	5
7.	To what extent have you thought you might lose your self-respect because of the stresses of the course?		1	2	3	4	5
8.	To what extent have you thought you might appear incompetent because of the stresses of the course?		1	2	3	4	5
9.	To what extent have you thought you might lose the affection of someone important to you because of the stresses of the course?		1	2	3	4	5
10.	To what extent have you thought the stresses of the course might make you appear to be an uncaring person?		1	2	3	4	5
11.	To what extent have you thought you might appear unethical because of the stresses of the course?		1	2	3	4	5
12.	To what extent have you thought the stresses of the course might prevent you from achieving an important goal?		1	2	3	4	5
13.	To what extent have you thought the stresses of the course might harm your health, safety or physical well-being?		1	2	3	4	5
14.	To what extent have you thought the stresses of the course might strain your financial resources?		1	2	3	4	5
15.	To what extent have you thought the stresses of the course might cause you to lose respect for someone else?		1	2	3	4	5

Appendix 2. Ways of Coping Questionnaire (WCQ) (Folkman and Lazarus, 1988).

Again, over the last month, thinking of any difficult situations you have had to deal with on the course, read each statement below and think about how much you have tended to use each of these to cope. If you used a strategy a great deal circle "3", if you used it quite a bit circle "2", if you used it somewhat circle "1", and if the statement does not seem to apply or you did not use it at all circle "0".

DOES NOT APPLY OR NOT USED			
USED SOMEWHAT			
USED QUITE A BIT			
USED A GREAT DEAL			
1.	0	1	2 3
I just concentrated on what I had to do next - the next step.			
6.	0	1	2 3
I did something that I did not think would work, but at least I was doing something.			
7.	0	1	2 3
I tried to get the person responsible to change his or her mind.			
8.	0	1	2 3
I talked to someone to find out more about the situation.			
9.	0	1	2 3
I criticised or lectured myself.			
10.	0	1	2 3
I tried not to burn my bridges, but leave things open somewhat.			
11.	0	1	2 3
I hoped for a miracle.			
12.	0	1	2 3
I went along with fate, sometimes I just have bad luck.			
13.	0	1	2 3
I went on as if nothing had happened.			
14.	0	1	2 3
I tried to keep my feelings to myself.			
15.	0	1	2 3
I looked for the silver lining, so to speak. I tried to look on the bright side of things.			
16.	0	1	2 3
I slept more than usual.			
17.	0	1	2 3
I expressed anger to the person(s) who caused the problem.			
18.	0	1	2 3
I accepted sympathy and understanding from someone.			
20.	0	1	2 3
I was inspired to do something creative about the problem.			
21.	0	1	2 3
I tried to forget the whole thing.			
22.	0	1	2 3
I got professional help.			
23.	0	1	2 3
I changed or grew as a person.			
25.	0	1	2 3
I apologised or did something to make up.			
26.	0	1	2 3
I made a plan of action and followed it.			
28.	0	1	2 3
I let my feelings out somehow.			
29.	0	1	2 3
I realised that I had brought the problem on myself.			

30. 0 1 2 3 I came out of the experience better than when I went in.
31. 0 1 2 3 I talked to someone who could do something concrete about the problem.
33. 0 1 2 3 I tried to make myself feel better by eating, drinking, smoking, using drugs or medications, etc.
34. 0 1 2 3 I took a big chance or did something very risky to solve the problem.
35. 0 1 2 3 I tried not to act too hastily or follow my first hunch.
36. 0 1 2 3 I found new faith.
38. 0 1 2 3 I rediscovered what is important in life.
39. 0 1 2 3 I changed something so things would turn out all right.
40. 0 1 2 3 I generally avoided being with people.
41. 0 1 2 3 I did not let it get to me. I refused to think too much about it.
42. 0 1 2 3 I asked advice from a relative or friend I respected.
43. 0 1 2 3 I kept others from knowing how bad things were.
44. 0 1 2 3 I made light of the situation. I refused to get too serious about it.
45. 0 1 2 3 I talked to someone about how I was feeling.
46. 0 1 2 3 I stood my ground and fought for what I wanted.
47. 0 1 2 3 I took it out on other people.
48. 0 1 2 3 I drew on my past experiences. I was in a similar position before.
49. 0 1 2 3 I knew what had to be done, so I doubled my efforts to make things work.
50. 0 1 2 3 I refused to believe that it had happened.
51. 0 1 2 3 I promised myself that things would be different next time.
52. 0 1 2 3 I came up with a couple of different solutions to the problem.
54. 0 1 2 3 I tried to keep my feelings about the problem from interfering with other things.
56. 0 1 2 3 I changed something about myself.
58. 0 1 2 3 I wished that the situation would go away or somehow be over with.
59. 0 1 2 3 I had fantasies or wishes about how things might turn out.
60. 0 1 2 3 I prayed.
62. 0 1 2 3 I went over in my mind what I would say or do.
63. 0 1 2 3 I thought about how a person I admire would handle this situation and used that as a model.

Appendix 3. The Significant Others Scale (SOS) (Power, Champion and Aris, 1988).

Listed below are various sources of personal and social support on which you may be able to draw. For each source of support please circle a number from 1 to 7 to show how well support is provided.

The second part of each question asks you to rate how you would like things to be if they were exactly as you hoped for. As before, please put a circle around one number between 1 to 7 to show what your rating is.

Please note: If a particular source of support does not exist for you, please leave the section blank.

Section 1 - Your supervisor on clinical placement

		Never	Sometimes			Always		
1	a) Can you trust, talk to frankly and share your feelings with your supervisor?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
2	a) Can you lean on and turn to your supervisor in times of difficulty?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
3	a) Does he or she give you practical help?	1	2	3	4	5	6	7
	b) What would your ideal be?	1	2	3	4	5	6	7
4	a) Can you spend time with him or her socially?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7

Section 2 - Another individual on placement (eg another trainee, an assistant psychologist, a colleague).

		Never	Sometimes			Always		
1	a) Can you trust, talk to frankly and share your feelings with this person?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
2	a) Can you lean on and turn to this person in times of difficulty?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
3	a) Does he or she give you practical help?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
4	a) Can you spend time with him or her socially?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7

Section 3 - The course. By this we mean the formal support structure provided by your training course that you can draw on if need be (eg a clinical tutor, personal tutor, support group, course staff).

		Never	Sometimes			Always		
1	a) Can you trust, talk to frankly and share your feelings with the course?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
2	a) Can you lean on and turn to the course in times of difficulty?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
3	a) Does the course give you practical help?	1	2	3	4	5	6	7
	b) What would your ideal be?	1	2	3	4	5	6	7
4	a) Can you spend time with the course staff socially?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7

Section 4 - Other trainees. By this we mean the other trainees on your course.

		Never	Sometimes				Always
1	a) Can you trust, talk to frankly and share your feelings with the other trainees?	1	2	3	4	5	6 7
	b) What rating would your ideal be?	1	2	3	4	5	6 7
2	a) Can you lean on and turn to other trainees in times of difficulty?	1	2	3	4	5	6 7
	b) What rating would your ideal be?	1	2	3	4	5	6 7
3	a) Do they give you practical help?	1	2	3	4	5	6 7
	b) What rating would your ideal be?	1	2	3	4	5	6 7
4	a) Can you spend time with them socially?	1	2	3	4	5	6 7
	b) What rating would your ideal be?	1	2	3	4	5	6 7

Section 5 - The confidante you rely on most outside work (eg your spouse, partner, a close friend or relative).

		Never	Sometimes				Always
1	a) Can you trust, talk to frankly and share your feelings with this person?	1	2	3	4	5	6 7
	b) What rating would your ideal be?	1	2	3	4	5	6 7
2	a) Can you lean on and turn to this person in times of difficulty?	1	2	3	4	5	6 7
	b) What rating would your ideal be?	1	2	3	4	5	6 7
3	a) Does this person give you practical help?	1	2	3	4	5	6 7
	b) What rating would your ideal be?	1	2	3	4	5	6 7
4	a) Can you spend time with this person socially?	1	2	3	4	5	6 7
	b) What rating would your ideal be?	1	2	3	4	5	6 7

Section 6 - "Other". Please select someone who is a source of emotional and/or practical support to.

Who is this person?		Never	Sometimes				Always
1	a) Can you trust, talk to frankly and share your feelings with this person?	1	2	3	4	5	6 7
	b) What rating would your ideal be?	1	2	3	4	5	6 7
2	a) Can you lean on and turn to this person in times of difficulty?	1	2	3	4	5	6 7
	b) What rating would your ideal be?	1	2	3	4	5	6 7
3	a) Does this person give you practical help?	1	2	3	4	5	6 7
	b) What rating would your ideal be?	1	2	3	4	5	6 7
4	a) Can you spend time with this person socially?	1	2	3	4	5	6 7
	b) What rating would your ideal be?	1	2	3	4	5	6 7

Appendix 4. The Employee Assistance Program Inventory (EAPI) (Anton and Reed, 1994).

The following statements are about your psychological well-being in relation to the course. Please read each statement carefully and decide whether it is an accurate statement about you **over the last month**. For each item, underline the response that best represents your opinion about the accuracy of the statement: “false,” “slightly true,” “mainly true” or “very true.”

NB Items using the word “partner” refer to a spouse or relationship partner. If you do not have a spouse or partner, refer to your most significant relationship when answering these questions.

Responses					Questions about your well-being
1	False	Slightly true	Mainly true	Very true	I feel good about how I make decisions.
2	False	Slightly true	Mainly true	Very true	I get a sense of pride from my job.
3	False	Slightly true	Mainly true	Very true	I do not have much energy anymore.
4	False	Slightly true	Mainly true	Very true	I am concerned about my health risks.
5	False	Slightly true	Mainly true	Very true	We communicate well in my family.
6	False	Slightly true	Mainly true	Very true	I am a calm person.
7	False	Slightly true	Mainly true	Very true	Most answers to our problems are simple and obvious.
8	False	Slightly true	Mainly true	Very true	I often feel frustrated with others on the course.
9	False	Slightly true	Mainly true	Very true	Much of my free time is spent drinking with friends.
10	False	Slightly true	Mainly true	Very true	I can share anything with my partner.
11	False	Slightly true	Mainly true	Very true	I am as capable as most other people.
12	False	Slightly true	Mainly true	Very true	There are few incentives for good work on the course.
13	False	Slightly true	Mainly true	Very true	I am no longer able to concentrate.
14	False	Slightly true	Mainly true	Very true	I have trouble paying the bills.
15	False	Slightly true	Mainly true	Very true	There is too much stress in my family.
16	False	Slightly true	Mainly true	Very true	I have aches and pains because of tension.
17	False	Slightly true	Mainly true	Very true	My problems are minor.
18	False	Slightly true	Mainly true	Very true	I let others on the job make too many demands on me.
19	False	Slightly true	Mainly true	Very true	I have hurt myself accidentally because of drinking or drugs.
20	False	Slightly true	Mainly true	Very true	I enjoy spending time with my partner.
21	False	Slightly true	Mainly true	Very true	I like to try new activities, even if I do not do well.
22	False	Slightly true	Mainly true	Very true	I am asked to do things on the course that I do not know how to do.
23	False	Slightly true	Mainly true	Very true	Everything now seems to take great effort.
24	False	Slightly true	Mainly true	Very true	I have to go to court in the near future.
25	False	Slightly true	Mainly true	Very true	There is a lot of arguing in my family.

Responses					Questions about your well-being
26	False	Slightly true	Mainly true	Very true	I get upset easily.
27	False	Slightly true	Mainly true	Very true	I do not have any more problems than most people.
28	False	Slightly true	Mainly true	Very true	I do not like the people I work with.
29	False	Slightly true	Mainly true	Very true	I often rely on alcohol or drugs to reduce stress.
30	False	Slightly true	Mainly true	Very true	I find it easy to talk to my partner.
31	False	Slightly true	Mainly true	Very true	Others say I lack self-confidence.
32	False	Slightly true	Mainly true	Very true	Expectations for performance on the course are too high.
33	False	Slightly true	Mainly true	Very true	Others have recently told me that I look sad.
34	False	Slightly true	Mainly true	Very true	I have been sick for some time now.
35	False	Slightly true	Mainly true	Very true	We deal fairly with each other in my family.
36	False	Slightly true	Mainly true	Very true	I often feel tense.
37	False	Slightly true	Mainly true	Very true	I am not interested in what others think about my problems.
38	False	Slightly true	Mainly true	Very true	Some people on the course cause problems for me.
39	False	Slightly true	Mainly true	Very true	I spend too much money on drugs or alcohol.
40	False	Slightly true	Mainly true	Very true	My partner does not really know me.
41	False	Slightly true	Mainly true	Very true	I have a poor opinion of myself.
42	False	Slightly true	Mainly true	Very true	I do not get the recognition I deserve on the course.
43	False	Slightly true	Mainly true	Very true	I feel sad or blue most of the time.
44	False	Slightly true	Mainly true	Very true	I have difficulty making ends meet.
45	False	Slightly true	Mainly true	Very true	Bad things are happening in my family right now.
46	False	Slightly true	Mainly true	Very true	I feel jittery much of the time.
47	False	Slightly true	Mainly true	Very true	Others need help more than I do.
48	False	Slightly true	Mainly true	Very true	I have trouble getting along with my coworkers.
49	False	Slightly true	Mainly true	Very true	Others have told me that I have a drug or alcohol problem.
50	False	Slightly true	Mainly true	Very true	My partner puts me down.
51	False	Slightly true	Mainly true	Very true	I am afraid to show my negative side.
52	False	Slightly true	Mainly true	Very true	I enjoy my job.
53	False	Slightly true	Mainly true	Very true	I have to make myself eat.
54	False	Slightly true	Mainly true	Very true	I have recently thought about calling a lawyer.
55	False	Slightly true	Mainly true	Very true	Members of my family are trying to run my life.
56	False	Slightly true	Mainly true	Very true	I am afraid much of the time.
57	False	Slightly true	Mainly true	Very true	I could solve my own problems if people would leave me alone.
58	False	Slightly true	Mainly true	Very true	I get angry with people on the job more easily than I used to.

Responses					Questions about your well-being
59	False	Slightly true	Mainly true	Very true	I have physical symptoms caused by drug or alcohol use.
60	False	Slightly true	Mainly true	Very true	I feel understood by my partner.
61	False	Slightly true	Mainly true	Very true	Most people like me.
62	False	Slightly true	Mainly true	Very true	I am often bored with my job.
63	False	Slightly true	Mainly true	Very true	Nothing seems fun anymore.
64	False	Slightly true	Mainly true	Very true	I cannot make my credit payments (car, credit cards ...).
65	False	Slightly true	Mainly true	Very true	My family is having major problems right now.
66	False	Slightly true	Mainly true	Very true	I worry myself sick.
67	False	Slightly true	Mainly true	Very true	Things usually take care of themselves.
68	False	Slightly true	Mainly true	Very true	If it weren't for certain people, I would enjoy the course.
69	False	Slightly true	Mainly true	Very true	I am ashamed of things I have done while drinking or using drugs.
70	False	Slightly true	Mainly true	Very true	I get a lot of support from my partner.
71	False	Slightly true	Mainly true	Very true	I am overly sensitive to criticism.
72	False	Slightly true	Mainly true	Very true	Other people's work is unfairly assigned to me.
73	False	Slightly true	Mainly true	Very true	I feel hopeless about my life.
74	False	Slightly true	Mainly true	Very true	I worry that I will never get out of debt.
75	False	Slightly true	Mainly true	Very true	My family has changed a lot recently.
76	False	Slightly true	Mainly true	Very true	I worry more than most people.
77	False	Slightly true	Mainly true	Very true	Most people with problems just need to grow up.
78	False	Slightly true	Mainly true	Very true	I am accepted by my coworkers on the job.
79	False	Slightly true	Mainly true	Very true	I have health problems because of my use of drugs or alcohol.
80	False	Slightly true	Mainly true	Very true	I have too many arguments with my partner.
81	False	Slightly true	Mainly true	Very true	I feel successful for my stage in life.
82	False	Slightly true	Mainly true	Very true	Too much of my time on the course goes to unimportant tasks.
83	False	Slightly true	Mainly true	Very true	Lately, I would rather die than go on living.
84	False	Slightly true	Mainly true	Very true	Things are going pretty well financially.
85	False	Slightly true	Mainly true	Very true	I have a lot of problems at home.
86	False	Slightly true	Mainly true	Very true	I often feel edgy for no good reason.
87	False	Slightly true	Mainly true	Very true	My problems are my own business.
88	False	Slightly true	Mainly true	Very true	I have been told that I am too critical of people on the course.
89	False	Slightly true	Mainly true	Very true	I have been hassled at work because of my drinking or use of drugs.
90	False	Slightly true	Mainly true	Very true	My partner expects too much from me.
91	False	Slightly true	Mainly true	Very true	I don't feel attractive.

Responses					Questions about your well-being
92	False	Slightly true	Mainly true	Very true	I have little or no say in decisions affecting the course.
93	False	Slightly true	Mainly true	Very true	Sad thoughts keep me awake at night.
94	False	Slightly true	Mainly true	Very true	I am having legal trouble.
95	False	Slightly true	Mainly true	Very true	I am often angry at a family member.
96	False	Slightly true	Mainly true	Very true	I cannot stop worrying.
97	False	Slightly true	Mainly true	Very true	I don't need help to solve my problems.
98	False	Slightly true	Mainly true	Very true	I enjoy the people I work with.
99	False	Slightly true	Mainly true	Very true	Drug or alcohol use has hurt my job performance.
100	False	Slightly true	Mainly true	Very true	I don't like how my relationship with my partner has worked out.
101	False	Slightly true	Mainly true	Very true	I feel that I am a failure.
102	False	Slightly true	Mainly true	Very true	I dislike what I do for a living.
103	False	Slightly true	Mainly true	Very true	I usually wake up looking forward to the day.
104	False	Slightly true	Mainly true	Very true	I am worried about my health.
105	False	Slightly true	Mainly true	Very true	I am ashamed of some of the things my family does.
106	False	Slightly true	Mainly true	Very true	I have trouble falling asleep because of worry.
107	False	Slightly true	Mainly true	Very true	I don't see the need to make changes to my life.
108	False	Slightly true	Mainly true	Very true	I argue a lot with people on the course.
109	False	Slightly true	Mainly true	Very true	I miss work because of my drinking or drug use.
110	False	Slightly true	Mainly true	Very true	My partner often hurts my feelings.
111	False	Slightly true	Mainly true	Very true	I express my opinion even when others don't agree.
112	False	Slightly true	Mainly true	Very true	The course creates much stress.
113	False	Slightly true	Mainly true	Very true	Death would seem a relief to me.
114	False	Slightly true	Mainly true	Very true	I need help in reducing stress caused by lack of money.
115	False	Slightly true	Mainly true	Very true	There are a lot of bad feelings in my family.
116	False	Slightly true	Mainly true	Very true	I worry too much about bad things that might happen.
117	False	Slightly true	Mainly true	Very true	It is a waste of time to think about problems.
118	False	Slightly true	Mainly true	Very true	Coworkers have complained that I do not cooperate with them.
119	False	Slightly true	Mainly true	Very true	I have been in trouble with the law because of my use of drugs or alcohol.
120	False	Slightly true	Mainly true	Very true	When I am with my partner, I feel lonely.

Appendix 5. The Perceived Stress Scale (Cohen, Kamarck and Mermelstein, 1983).

The following questions ask you about your feelings and thoughts **during the last month**. In each case please indicate **how often** you felt or thought a certain way.

- 0** = **Never**
1 = **Almost never**
2 = **Sometimes**
3 = **Fairly often**
4 = **Very often**

- | | | |
|-----|---|--------------------------|
| 1. | How often have you been upset because of something that happened unexpectedly? | <input type="checkbox"/> |
| 2. | How often have you felt that you were unable to control the important things in your life? | <input type="checkbox"/> |
| 3. | How often have you felt nervous and stressed? | <input type="checkbox"/> |
| 6. | How often have you felt confident about your ability to handle your problems? | <input type="checkbox"/> |
| 7. | How often have you felt that things were going your way? | <input type="checkbox"/> |
| 8. | How often have you found that you could not cope with all the things you had to do? | <input type="checkbox"/> |
| 9. | How often have you been able to control irritations in your life? | <input type="checkbox"/> |
| 10. | How often have you felt that you were on top of things? | <input type="checkbox"/> |
| 11. | How often have you been angered because of things that happened that were outside your control? | <input type="checkbox"/> |
| 14. | How often have you felt difficulties were piling up so high that you could not overcome them? | <input type="checkbox"/> |

Appendix 6. The World Health Organization Quality of Life Assessment (WHOQOL) Positive Feelings Scale (WHOQOL Group, 1995).

F6.1.2 How much do you enjoy life?

Not at all 1	A little 2	A moderate amount 3	Very much 4	An extreme amount 5
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F6.1.4 How positive do you feel about the future?

Not at all 1	Slightly 2	Moderately 3	Very 4	Extremely 5
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F6.1.6 How much do you experience positive feelings in your life?

Not at all 1	A little 2	A moderate amount 3	Very much 4	An extreme amount 5
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F6.1.3 Do you generally feel content?

Never 1	Seldom 2	Quite often 3	Very often 4	Always 5
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Appendix 7. Letter to course directors inviting them to participate.

Name
Address

Date

Dear,

We are currently setting up a longitudinal investigation of how stress, support and coping mediate the psychological well-being of clinical psychology trainees. A brief research proposal is enclosed for your information.

We feel this project may prove to be important in two ways. First, we hope it will represent a meaningful contribution to our understanding of the complex effects of stress on longer-term adaptation. Second, we feel that a better understanding of the psychological well-being of clinical psychology trainees, and the moderating effects of support, coping and other contextual factors will be valuable information to clinical psychology course teams in continuing to provide for their trainees' needs. As well as conducting global analyses as indicated in the research proposal, we would hope to conduct the analyses on a course by course basis, so that this data can be fed back to you for your information. We would of course ensure that individual trainees' confidentiality would not be compromised in this process of feedback.

We are writing in the hope that you might wish to involve your course in this work. If so, this would involve asking the first and second year trainees to participate at two time points (early December 1995 and again in early December 1996). Trainees would be asked to complete several questionnaire measures at these two time points, as set out in the research proposal. The confidentiality of trainees would be assured, and informed consent obtained at time one.

Should you wish your course to be involved, we would be grateful if you could indicate with whom we might liaise further to carry out this work (please reply to Dr Peters, UCL). Perhaps it would be possible to liaise with a member of your course team, or a first or second year trainee? We realise that you, your team and the trainees have strict demands on your time, but we hope that this project will prove to be useful to your course in continuing to find ways of ensuring the well-being of trainees.

We thank you in advance, and look forward to hearing from you. Please do not hesitate to contact any one of us should you wish to discuss the project further.

Yours sincerely,

Willem Kuyken, Salomons Centre, South East Thames Training Course.
Emmanuelle Peters, Academic Tutor, UCL Training Course.
Prof. Mick Power, Department of Psychiatry, University of Edinburgh.

Appendix 8. Cover letter to trainee clinical psychologists inviting them to participate.

Name

Course

Date

Dear Trainee,

Your course director has kindly given permission for us to approach you, asking you to take part in our project. Our aims are as follows:

- ▶ **To produce a detailed profile of the psychological well-being of clinical psychology trainees.**
- ▶ **To begin to understand how trainees' sources of social support and ways of coping mediate their well-being.**
- ▶ **To disseminate our findings to those involved in clinical psychology training and directly to individual courses. We hope that the findings will help courses consolidate and/or develop the ways in which they support trainees.**

We hope that you will choose to participate so that your views and experiences can be included, and we can argue that the work was truly representative of trainees' views and experiences.

These questions comprise the first part of our work, and should not take longer than about 30 minutes to answer. We realise some parts are a little long, but we feel this is necessary to produce a meaningful profile. Once you have finished, please return your answers directly to us in the prepaid envelope, addressed to Salomons Centre. Because our work is longitudinal, we will contact you again next year between November and Christmas, 1996. We will be asking you to complete a small subset of these questions again then. This will enable us to examine the relationship of support and coping on psychological well-being over time.

Your participation will be completely confidential. This will be ensured in the following way. When completed questionnaires are returned in the SAE envelopes provided, Willem Kuyken, as the project's coordinator, will pass them on unopened to a research assistant. She will be responsible for removing identifying information from the questionnaire packs (the front page) and entering the data onto a computer. Furthermore, after the second stage of the project, all identifying information will be shredded.

We look forward to hearing from you, and thank you in advance. Please feel free to contact any one of us should you require any further information or clarification.

Yours sincerely,

Emmanuelle Peters

Academic Tutor (University College London Course)

Willem Kuyken

Trainee Clinical Psychologist (South Thames Course)

Mick Power

Professor of Clinical Psychology (Edinburgh Course)

Appendix 9. Letter from the South Thames Ethics Committee.

AL/LT/75

27th November 1995

Dr W Kuyken
27 Marsden Road
East Dulwich
London SE15 4EE

Dear Willem,

Thank you for your revised letter to participants. The Panel has noted that you have made all the required changes to the letter to participants and full Approval of the Project has now been given. The Panel are very interested in the Project and look forward to seeing the results.

We hope you enjoy the research and wish you well with the work.

Yours sincerely,

Dr A Lavender
Chair
Salomons Centre/Clinical
Psychology Course Ethics Panel

Appendix 10. Data management and exploration.

Data management

Data were entered into a data file as coded in the questionnaire pack. Coding problems were handled as follows. If a respondent marked two responses that were adjacent to each other {e.g. 'somewhat' (3) and 'moderately' (4")}, the mean of the two responses was entered. If a respondent marked two responses that were not adjacent to each other, a missing data value was recorded. If a respondent had incompletely filled in a particular questionnaire in the questionnaire pack (>15per cent of responses missing), all values were entered as missing.

The data file was then checked by scanning for any out of range values, and cross-referencing with original questionnaires to reenter data correctly or code values as missing. There were few missing values (<2 per cent). However, where there were missing values for a scale (only if <15 per cent of responses were missing), the variable mean was substituted for missing values.

The next stage involved recoding response choices (e.g. reverse scoring) and calculating scale scores. In each case this involved the simple algebraic sum of either the raw or recoded responses. The following scoring checks were carried out:

1. Calculating all scale scores for two respondents by hand to check the computer software had been used correctly.
2. Examining scale distributions to check that no scores were out of range. Several minor discrepancies were noted, but these were where respondents' values had been estimated for missing data.
3. Examining the item-total correlations for all scales to verify that the correlations were positive in direction and substantial in magnitude. Only one item failed this criteria (i.e. 'I have been in trouble with the law because of my use of drugs or alcohol'), but on inspection this was because there was no variance in responses (all respondents answered 'false').

The EAPI psychological well-being scales raw scale scores were transformed using linear transformations derived from Anton and Reed's (1994) standardisation sample to *T* values (i.e. percentile scores, where the mean is 50 and each standard deviation is 10 points). The substance abuse scale was not transformed, as Anton and Reed (1994) have found this distribution to be highly positively skewed (replicated in this data set). Instead their recommended cut-off score of 16 was used to categorise individuals as either having a substance abuse problem or not having a substance abuse problem.

Exploring and transforming the data

To explore the data stem and leaf plots, box and whisker plots, skewness, kurtosis and descriptive statistics were computed for all the scales. These plots and descriptive statistics were used to examine whether any scales were distributed significantly differently from normal. In addition, Kolmogorov-Smirnov tests were computed to test the statistical null hypothesis that distributions would not be significantly different from a normal distribution. Kolmogorov-Smirnov *Z* statistics were reported (two-tailed significance levels).

Where scales were found to be significantly different from a normal distribution, transformations were carried out in order to reduce skewness and reduce the influence of outliers. In addition, because a normal distribution and uniform variance go together, transforming variables would make it more likely that homoscedasticity would also be achieved (Howell, 1987; Tabachnick and Fidell, 1989). The following transformation strategy was adopted:

Moderate positive skew	⇒	Square root transformation
Marked positive skew	⇒	Log (base e) transformation
Moderate negative skew	⇒	Reflect and square root transformation
Marked negative skew	⇒	Reflect and log (base e) transformation.

Following transformation, stem and leaf plots, skewness and Kolmogorov-Smirnov *Z* statistics were recomputed to examine any changes in scale distributions.

- ▶ **Age variable.** The age variable was highly positively skewed (Kolmogorov-Smirnov $Z = 2.57$, $p < 0.001$); the 95 per cent confidence interval range was small (26.61 to 27.80). A logarithmic transformation produced a less skewed distribution, but the variable remained positively skewed.
- ▶ **Appraisal scales.** At time one, the control scale was significantly different from normal (Kolmogorov-Smirnov $Z = 1.57$, $p < 0.05$), with a slight positive skew. A square root transformation yielded some reduction in skewness, although the scale remained positively skewed. At time two, the scale remained positively skewed. The threat scale was slightly positively skewed (Kolmogorov-Smirnov $Z = 1.29$, $p = 0.09$). A square root transformation yielded some reduction in skewness, although the scale remained positively skewed. At time two, the scale distribution was slightly positively skewed.
- ▶ **Coping scales.** At time one, the eight Ways of Coping Questionnaire scales were distributed as follows: the confrontative coping scale was positively skewed (Kolmogorov-Smirnov $Z = 1.57$, $p < 0.05$); the distancing scale was positively skewed (Kolmogorov-Smirnov $Z = 1.77$, $p < 0.01$); the self-controlling scale was slightly positively skewed (Kolmogorov-Smirnov $Z = 1.24$, $p = 0.09$); the social support seeking scale was slightly negatively skewed (Kolmogorov-Smirnov $Z = 1.38$, $p < 0.05$); the accepting responsibility scale was positively skewed (Kolmogorov-Smirnov $Z = 1.41$, $p < 0.05$); the escape-avoidance scale was normally distributed (Kolmogorov-Smirnov $Z = 1.20$, non-significant); the planful problem solving scale was normally distributed with a slight negative skew (Kolmogorov-Smirnov $Z = 1.15$, non-significant) and the positive reappraisal scale was positively skewed (Kolmogorov-Smirnov $Z = 1.42$, $p < 0.05$). Square root and subsequent logarithmic transformations were computed for skewed WCQ scales. However, transformation produced little reduction in skewness for these scales, and they remained significantly different from a normal distribution. At time two, all the coping scales were distributed similarly, with the exception of social support seeking which was normally distributed (Kolmogorov-Smirnov $Z < 1$), and planful problem solving which was slightly positively skewed (Kolmogorov-Smirnov $Z = 1.43$, $p < 0.05$).
- ▶ **Social support scales.** At time one, the single question about overall social support was very negatively skewed (Kolmogorov-Smirnov $Z = 4.12$, $p < 0.001$), and demonstrated poor variance, standard deviation .76. This question was therefore not used in further

analyses. At time one, all the Significant Others Scale variables were more or less normally distributed (all Kolmogorov-Smirnov Z 's < 1). At time two, the social support variables were somewhat more positively skewed.

- ▶ **Perceived stress.** At time one, the perceived stress scale was not significantly different from a normal distribution (Kolmogorov-Smirnov $Z < 1$, non-significant), although the stem and leaf plot suggested a slight bi-modal distribution with the first smaller peak at 14/15 (frequency 20) and the second slightly higher peak at 20/21 (frequency 24). At time two, the scale was not significantly different from a normal distribution (Kolmogorov-Smirnov $Z < 1$), although again there was a slight bi-modal distribution, with a small peak at 10/11 (frequency 13) and main peak at 18/19 (frequency 21).
- ▶ **Psychological well-being scales.** At time one, the ten EAPI well-being scales were distributed as follows. The self-esteem problems scale was positively skewed, (Kolmogorov-Smirnov $Z = 1.52$, $p < 0.05$); the work adjustment scale was positively skewed (Kolmogorov-Smirnov $Z = 1.51$, $p < 0.05$); the depression scale was very positively skewed (Kolmogorov-Smirnov $Z = 2.11$, $p < 0.001$); the external stressors scale was positively skewed (Kolmogorov-Smirnov $Z = 1.66$, $p < 0.01$); the family problems scale was positively skewed (Kolmogorov-Smirnov $Z = 2.03$, $p < 0.001$) (there were a number of outliers with high scores on this scale); the anxiety scale was bi-modally distributed with two equal peaks at 16/17 and 24/25 (Kolmogorov-Smirnov $Z = 1.11$, non-significant); the problem minimization scale was slightly positively skewed (Kolmogorov-Smirnov $Z = 1.35$, $p < 0.05$); the interpersonal conflict scale was positively skewed (Kolmogorov-Smirnov $Z = 2.28$, $p < 0.001$) (although there were a number of outliers with high scores); the substance abuse scale was very positively skewed (Kolmogorov-Smirnov $Z = 3.46$, $p < 0.001$) (although there were a number of outliers with high scores); and the marital problems scale was positively skewed (Kolmogorov-Smirnov $Z = 2.28$, $p < 0.001$), although the stem and leaf plot suggested there was a slight bi-modal distribution with a large first peak at 12 (frequency 39) and a smaller second peak at 16 (frequency 15). There were a number of outliers with high scores on the marital problems scale. A square root transformation of the self-esteem problems scale reduced skewness; the scale was no longer significantly different from a normal distribution. A square root transformation of the work adjustment scale reduced skewness; the scale was no longer

significantly different from a normal distribution. A logarithmic transformation of the depression scale reduced skewness, the scale was no longer significantly different from a normal distribution. A square root transformation of the external stressors scale reduced skewness, although the scale remained positively skewed. A logarithmic transformation of the family problems scale reduced skewness, but the scale remained positively skewed. A square root transformation of the problem minimization scale reduced skewness, but the scale remained positively skewed. A logarithmic transformation of the interpersonal conflict scale reduced skewness, but the scale remained positively skewed. A logarithmic transformation of the substance abuse scale reduced skewness, but the scale remained positively skewed. A logarithmic transformation of the marital problems scale reduced skewness, but the scale remained positively skewed. At time two, all the EAPI scales remained skewed, as before, except work adjustment, which was not distributed significantly different from a normal distribution (Kolmogorov-Smirnov $Z = 1.10$, non-significant), and anxiety which was positively skewed with a main peak at 16/17 (frequency 26) and a smaller peak at 26/27 (frequency 13 (Kolmogorov-Smirnov $Z = 1.62$, $p < 0.05$). Closer examination of the work adjustment scale at time two suggested three peaks in the distribution at 46, 50/51, 55/56/57.

- At time one, the WHOQOL **positive feelings** scale was slightly negatively skewed (Kolmogorov-Smirnov $Z = 1.59$, $p < 0.05$). At time two, the scale was distributed comparably. Reflect and square root transformations reduced skewness, but the scale remained skewed.

SUPPLEMENT

Research Diary

Introduction

- ▶ This diary is a record of my relationship with this research. Two major themes running through the diary have been '*Why am I doing this research?*' and '*Where does subjectivity end and objectivity begin in research?*'
 - ▶ My research has involved me looking at my peers, some of them friends, and asking them to give something of themselves. This diary represents, in a small way, my attempt to give something in return, to share something of me.
 - ▶ The diary represents my personal views and experiences, nothing more and nothing less. It is presented as my thoughts and feelings about a range of issues that have had some bearing on this research. I would not expect any reader to agree with the observations. There are many about which I am in a constant state of flux. I have little doubt that when I look back on some of these entries in years to come I will react to them with surprise, amazement, annoyance and no doubt some amusement.
 - ▶ The people whom I have mentioned by name have consented to being mentioned in the diary. Occasionally I have mentioned people whom on rereading I felt it would not be appropriate to name. In these cases I have disguised the names.
 - ▶ I take full responsibility for the diary's contents.
-

A scientist's basic tenets and lived beliefs do not spring full-blown from the brow of Zeus; instead, they are deeply anchored in one's own biography. At least in part, they are, as Freud discovered, attempts to master basic problems of one's childhood, to find solutions to fundamental existential questions. Surely, no one can sustain a long-term interest in a topic of science without a deep personal commitment. One's choice of subject matter, research problems, and investigative techniques, as well as one's philosophy of science, must be personally meaningful in a deep sense. Of course, that too, is not the whole story. Nothing in human living ever is, and so I suspect that no scientist can fully explain what fuels or inspires his or her beliefs over the years.

Strupp, 1991, p.293.

September 1995

Looking back to when I first thought of doing this research, I think that several strands contributed to my getting it off the ground.

1) Starting the course felt like 'culture-shock.' I felt like I had been transported from one culture into another and I didn't know the customs and language of the new culture. The project was, perhaps, my way of learning the customs and language of the South Thames (Salomons) Clinical Psychology Training Scheme culture. I had been transported from responsibility to little responsibility, from feeling competent professionally to living on the edge of my competence, from being financially comfortable to a student wage. The list could go on.

2) Despite feeling generally good about beginning my clinical training, I found myself in the midst of my year group talking about how difficult everything was, how stressed everyone felt, how overwhelming it all was. I didn't recognise this in myself. At the time, I thought clinical psychology training was easier than working under the threat of contract renewal every five and a half months, a lot of responsibility and a heavy workload. Also, compared to '*Welcome to the Institute of Psychiatry, we are pleased to have you here as Ph.D. students, now go out and just do the Ph.D., and be sure to do it in three years,*' I felt contained.

3) The publication of my Cognitive Therapy and Research paper on stress, coping and depression, felt like a validation of this small scale piece of research work; it felt like a message that I had something small but of value to contribute.

4) Reading Delia Cushway's work on trainee stress felt unsatisfying, reducing the richness of experience to a score on the General Health Questionnaire. I felt there was scope for doing something useful to build on this work.

5) Finally, I felt de-skilled and infantilised in the first year of the course. Designing and setting up the project gave me something to throw myself into that I felt was mine and of some value. It gave me a sense of competence.

I began to think that I could combine these strands, and rang Mick (a friend and senior colleague) about the idea. In his usual supportive and empowering way he said he thought it was a good idea, and he would be happy to help.

22 February 1996

I feel grateful and relieved to count the number of returned questionnaires, 153. This makes me feel that the respondents identify with the survey and its aims and objectives enough to give up 30 minutes of their already busy schedule. I feel quite moved, somehow. It also motivates me to make the analyses and feedback process as meaningful as possible.

15 April 1996

We had an interesting workshop at Salomons this morning on our learning styles in research. I learned that I am relatively individualistic in wanting to get stuck into a research question and project, and learning about issues as I need to. I guess these are quite central lessons from doing

a Ph.D. What was more interesting however, was a dawning sense that the personal and professional must be intertwined for a research question to be real to me, and the project to be meaningful to a prospective audience. I have long felt that the mantle of scientist-practitioner feels comfortable to me. Many pieces of research have had an important influence on me personally and on my clinical work. However, there are many more research papers that I have thought on reading the title '*what an interesting project*,' but have felt disappointed on reading the paper's content. It seems to me that those projects that take on a real issue, address it in a way that has much ecological validity and will be accessible to its audience are those that have influenced me. I would like to do such work.

Coming out of this seminar I felt two things. First, that I will not undertake any research in the future unless I feel the question addresses a meaningful (to me) question, or meets a need. Carl Rogers makes the point that he as a psychologist wants to be a rifle, rather than an ammunition dump. That is to say he wants to use his intellect to get an interesting problem in his sights and fire, rather than simply accumulate information. Second, in relation to the project on trainee adaptation, I feel that the model, and the measures I have selected, can tease out underlying intra-psychic processes. Yet they seem to me to lose the person.

19 April 1996

I am spending the research week doing my preliminary analyses of the time one data. It feels exciting to have this unique data set, and begin to address the research questions.

When I found some differences between years, and the prevalence of substance abuse among male trainees, I sat up and thought, this might be quite important in helping us understand trainees' experience of training and to identify vulnerable groups of individuals.

2 May 1996

I am struck by how over the last year and a half I have gone through a series of transformations in my views and feelings about research. I feel unsure about the direction I want to take, or to use Roger's metaphor in which direction to point my rifle. I think this has something to do with the blur of professional and personal boundaries and what Adrian (a friend and colleague) once so accurately described as '*living on the edge of our competence*.'

5 May 1996

I have just finished reading Carl Rogers' seminal book '*On Becoming a Person*.' Although now rather dated, it is a surprisingly complex, insightful and rich text. I shall give up relying on secondary references of seminal texts and start buying the originals. Aaron Beck's early texts and David Smail's latest book are now on my shopping list. '*On Becoming a Person*' gives away a great deal about Rogers himself, his strengths and weaknesses. It is quite moving to see him being

so honest, laying himself open.

It was particularly interesting to see that he was a scientist-practitioner, and believed in the value of research. While his understanding of research was somewhat broader than his contemporaries, he thought that all his ideas should be subjected to research enquiry. Seeing his unassuming view of research was also interesting. He argues that researchers should not claim any grandiose aims about science, the advancement of knowledge and seeking after truth. Instead, research is only ever a personal enquiry for the researcher into a question that has meaning for that researcher. Although I cannot agree (and I am sure that informed consent would be difficult to obtain, if research participants thought their time would be for the personal development of the researcher), it is a humbling argument. Whenever I pick up a journal from the 1960's, or even read Tolstoy or some early Buddhist texts, I sometimes think that there is a circularity to research. Perhaps we fool ourselves into thinking that we are at the frontiers of knowledge. Actually, we are merely part of a cycle that is usually invisible to us, participating in something much greater than our research, however thorough, however creative, however well-cited. As Einstein put it (cited in Highfield and Carter, 1993; p.17):

Out yonder there was this huge world, which exists independently of us human beings and which stands before us like a great, eternal riddle, at least partly accessible to our inspection and thinking.

Yet as human beings we cannot help but influence the process of research. As readers of research we cannot help but see and remember only that which we can see and remember. I must have read many papers, but I remember only a small part of what I have read. What I remember is what I may in some form have already known. While at one level this is so obvious as to be almost absurd, it begs some piercing questions. Why do we conduct research? For whom is the work carried out? Why is scientific research de-humanised, (writing in the third person, disseminated mostly through scholarly journals), and rarely of significance in policy or people's everyday life?

10 May 1996: After supervision.

Tony (my course director and research supervisor) suggested during supervision that this research is my way of distancing myself from training. I found his suggestion frightening, had the sensation of the room spinning, and Tony getting out of focus and momentarily smaller.

19 May 1996

After Tony's suggestion that this project served a personal purpose in distancing the more difficult parts of clinical training, I have felt singularly disinterested in the analyses. Before, I felt driven, excited, as though I could work throughout the night looking at the data, running a series of tests to examine the pattern of relationships. Now I can't even bear to open the data file.

25 May 1996

I have had a new rush of commitment to the project. I have spent two days simply managing the data, exploring the scales to see how they are behaving and learning all about transformations. I can sit at my computer for three hours, ignore the phone and feel focused: a great feeling. At the end of the day I went for a run and did a good time, usually a sign of my mental state rather than physical state.

I am reluctant to examine where this feeling comes from, but I do have an idea. On Thursday we had an afternoon teaching which was stiflingly boring. It was essentially covering material we had covered before, and it was presented in a way that was both patronising and unengaging. I guess it has to be unengaging by definition; if she had engaged with us, she would have discovered she was teaching us material we already knew. Several people seem to teach only for evangelical motives, to come and tell us how wonderful their approach or service is. As a trainee this is always transparent, in a way that it might not be at a conference. Anyway, I found myself sitting there, being preached at and patronised. After an hour I couldn't bear it any longer. On the pretext of taking notes I got on with some work of my own, planning a literature search. I guess my pretext of taking notes was really obvious, because she was talking about a clinical case that she had miraculously 'cured' (evangelists rarely describe their failures), and she asked me directly if I had a question. So here I was, not only bored, but caught and humiliated too. I think this sort of helplessness, boredom and feeling patronised is a good combination for making me want to get stuck into some work and ideas of my own. It is a sort of reaction to feeling powerless and de-skilled. So I have had two wonderful days of getting stuck into the data. This is not to say that I will develop a penchant for deliberately setting out to be humiliated to overcome writer's block.

Later in the same day

After writing this diary entry and then going back to do some more analyses, I found again that I felt less driven. It reminds me of an exchange between John Cleese and Robyn Skynner (my spell check wants to change his name to Sinner), in which John Cleese wonders whether psychopathology lies behind a creative drive. He says that many of his friends who work in a creative way do not want to go into therapy because they are afraid it might destroy their creative potential. My recollection is that Cleese's question was more interesting than Skinner's answer.

27 May 1996

Yesterday I had a wonderful day of reading all the articles that have caught my eye over the last few months and have been lying patiently in my 'to read' file. Great finally to get my head around Jeremy Saffran's ideas on interpersonal cognitive psychotherapy. I feel I am beginning to develop a more consistent strand of thinking about clinical work and its relation to the research work, particularly on depression.

I also finished David Smail's 'The Origins of Unhappiness,' and couldn't help thinking of its relevance to this research. He talks a lot about power and how manifestations of distal power can have profound influences on people's adaptation and distress. The fact that my data is suggesting that during training trainees feel increasingly disempowered, and that this is related to distress (absence of well-being as succinctly defined by David Smail) suggest that some larger environmental malign power is influencing this picture. He also talks about a power horizon, in which we only see a limited chain of power. In my case this is the course staff or the head of the department of whatever placement I am on. However, Smail argues that actually this is only the proximal power structure. The NHS management structure, Department of Health policy and the 'business culture' that is influencing each of these layers is likely to impinge on my experience of training in a more distal way. Having seen clinical psychology settings in different countries, I am struck by the relatively powerless stature of clinical psychology in the UK. I am sure there are all sorts of pragmatic / historical reasons for this, including Eysenck, the dominance of psychiatry and nursing, the medical model, and the resultant tendency for clinical psychologists to retreat into something of an ivory tower.

Smail makes the point that power can be quantified by how much access a person or organisation has to resources, and also through more ideological channels. Each of these illustrations is about the absence of power which clinical psychologists, and particularly trainees, experience daily. In the NHS it is when the powerlessness impinges on my ability to do clinical work that I feel frustrated. I cannot help but feel that this feeling is what so many clients must feel, particularly those who have lived quite deprived lives. I remember one client on my Adult Placement who described a life of such utter powerlessness that it was almost impossible for me to get alongside her.

Each of Smail's books has had a surprising impact on me, given that I disagree with much of what he says: for example the forcefulness and single mindedness of his arguments, and the hypocrisy of continuing to work as a psychotherapist when he identifies compassionate political action as the only way to combat psychological distress. Yet his ideas contain compassion, a grain of common sense and a truth that hits a chord somewhere in me.

2 June 1996

Ho hum. Data management is tedious.

8 June 1996

Sitting in my office working on the analysis, I am struck by how research teams are, for me at least, a preferable, more efficient and more effective way of working. On the WHOQOL project we would regularly have team meetings where there was little doubt that the whole was usually (with firm leadership and clear direction) greater than the sum of the parts. Medical research

teams seem to me to capture this with productive and meaningful research programmes. Although I am, as ---- (a friend) once said, 'fiercely independent,' I also prefer to be fiercely independent as part of a team. I am sure that this work would be more effective and would take more meaningful directions in a research team framework. I think that many questions addressed in psychological research (e.g. why do people become depressed?) are beyond the reach of an individual researcher. Why not set up a team that comprises a clinical psychologist, a research psychologist, a psychiatrist, a research psychiatrist, a lay person with a history of depression, a biochemist etc Then the investigators might ask good questions and begin to answer them.

Research supervision does of course take up some of this slack and generally invigorates me. But after a 'solo long distance run' I feel I can easily begin to lose my drive.

Saturday 8 June, 1996

I finished my draft of the research questions, method section and cohort one analyses for supervision with Tony next Friday. It is satisfying to complete a piece of work, albeit only partly, and put it in an envelope to send off. On completing it, I put on my running kit in high spirits and ran a personal best four-mile time. There are no highs like doing something to the best of my ability and running at the threshold of my ability. I am now going to pat myself on the back by taking myself off to the Fleadh for some great music and a few pints of Guinness.

Tuesday evening, 11 June 1996

I was just looking back through this diary and am struck by how much the 'publicness' of my research is a preoccupation for me. Is it a way of getting external, objective confirmation for something that is enough removed from me to make it safe? The confirmation I need to repair an intrinsic sense of not being any good?

Saturday morning 27 July 1996

I have just got back from my wedding in the States and a week's holiday afterwards. This has been one of the most emotional and happy weeks of my life, and returning to England felt at first quite jarring and surreal. Now it is beginning to feel a bit more natural, but by way of feeling as if the wedding somehow happened to someone else, or if it happened to me on another plane of existence somehow. I don't want to lose the sense of connection and compassion.

In relation to this project and research more generally it has made me question the value of research, personally and publicly. Personally, it has left me feeling that life is sweet and each moment is valuable. What is important is the moments I can spend with my family and friends and in what is called in Buddhist thought 'right action' and 'right livelihood.' Research is time and energy consuming, and I have been wondering since returning how much I want to use my energy investing in it. The public value of the research feels less to me too. The experience of training as

a clinical psychologist is going to be quite different for different individuals. Although it has some value to flag up substance abuse as a problem in male clinical psychology trainees, for example, the deeper issues and structures for particular individuals may not be amenable to a piece of research such as this.

I think the straw that broke the camel's back has been reading a biography of Einstein on honeymoon, 'The Private Lives of Albert Einstein.' I had always thought of Einstein as a sort of beacon, a man who was a scientist with integrity *and a humanist*. This biography was like a hand grenade lobbed into the sacred temple. Einstein emerges as a great theoretical theorist without a doubt, but surprisingly like some senior scientists that I have met over the last seven years, Machiavellian, unscrupulously ambitious, egotistical, arrogant and perhaps most disappointingly, of questionable integrity and humanity.

I have also been reading some philosophy. Although philosophy does not come naturally or easily to me, it left me with a sense of philosophers not being afraid to take on some of life's real and profound questions, something that psychologists find ways of avoiding. Schneider (1996) cites a relevant passage from an article in the American Psychologist where this was expressed as:

My growing discontent with psychology over the past few decades stems from, among other things, my perception that too many psychologists hug the intellectual shoreline and are content to paddle quietly in their own small ponds. We live in a coherent world, although one of never-ending complexity. The big questions about it will never be answered if scholars simply attend to the comfortable little questions, no matter how important these latter exercises may seem to be. (Bevan, 1991; p.481).

Overall, I feel that since my wedding my priorities have changed, with research coming rather lower down than it had previously. As a result I feel unmotivated to work on the project, to immerse myself in it fully as I used to love doing with research. I think the way in which I have to find a moment here and there to fit research in doesn't help.

11 August 1996

I have finished the time one analyses. I have rarely looked at a data set in so much detail and feel curiously intimate with it. There is also a tremendous feeling of happiness at completing a large piece of work. I am reminded of a letter Einstein wrote to his son Eduard towards the end of his life: *'In the end nothing gives more joy and satisfaction than that which one wrests from oneself in the best form one can achieve. I feel this particularly now that my life is almost over.'*

Thinking back, with my memory filter in place, the things that strike me about the data are the number of people who chose to participate, the differences in the psychological adaptation of

trainees on different courses, the feeling of rising disempowerment into the training, the internalising (depression, anxiety and self-esteem) problems but not externalising problems, the incidence of substance abuse problems among male trainees, the rather clichéd picture of men not seeking social support and using distancing and avoidance as coping strategies.

12 August 1996

Holism. Scientific research requires two complementary modes of operating, one rational and one intuitive / experiential. Research involves rational thinking and enquiry, but also requires creative, intuitive leaps that we then work through in a rational, sequential way. This is consistent with Teasdale's ideas about meta-cognition, and neuropsychological explanations of modularity and functions in specific brain structures. It also reminds me of an explanation of Buddhist philosophy and Buddhist meditative practice. While the meditation provides the wind and sails, the philosophy and teachings provide the rudder that steers the boat in the right direction.

It seems that in science it is easy to produce an idea, research it and even publish it, but the exercise does not go anywhere without a rudder to steer it. I think Wordsworth's description of losing his capacity for open experiencing though growing from childhood into adulthood can have a parallel in science's ability to strip a phenomenon of its essence: '*shades of the prison house closing around the boy.*'

18 August 1996, Sunday evening.

The weather was beautiful this weekend. Halley (my wife) was away at a wedding. I had forced myself into a deadline of writing the first draft of a paper by telling Emmanuelle (a friend and colleague), Mick and Tony I would do it. I spent two days wrestling out the introduction and method and skeletal structure of the results and discussion. By Sunday night I had it in a form I felt was presentable and felt like I had wrested something out of myself. It felt like digging a bush with deep and broad roots out of the ground. When I sent it out, I felt a tremendous sense of relief with a job well done.

22 August 1996

I came across a section in one of my Open University undergraduate text books on humanistic psychology, which seemed to capture the more overarching issues in psychology. It had a series of activities which were instructive. These were (1) listing two ways in which meaning is given in your life and (2) listing your life goals. Then arrange your life goals in terms of whether they are ends in and of themselves or essentially a means to some other end (e.g. by asking '*why do I want that?*') They then ask to what extent is the meaning in your life reflected in your goals and in your activities in general.

Trying to do this felt quite easy at one level, but tremendously difficult at another. I found the first

exercise easy, although I wanted to expand it to three meanings, namely mutual loving relationships, purposive work (what is called in Buddhism 'right livelihood,' that is to say ethical work that furthers something consistent with my values), and spiritual development. I found my overarching life goals quite easy, namely to live in the present for happiness, the future for hope and to let the past do no more than fire and light them both. But when I thought about specific goals, the task became much more difficult, something about having a loving and fulfilling family life, something about developing mindfulness, something about psychological, physical and spiritual growth and something about producing work that is thoughtful, ethical and responsible. When I then tried to think about why, I just felt like saying '*because they are ends in and of themselves.*' The worrying part was the last part, the extent to which my usual activities reflected my meanings and goals. I reframed this question as '*How am I now in my job, relationships and life generally?*' The percentage of my day taken up with things that have nothing to do with my 'meanings' and 'goals' is alarming. What is even more alarming is the extent to which some of these things are unavoidable or inescapable. This leaves me feeling that how I am and how I would like to be are not congruent. Nevertheless, I don't feel like I am in a perpetual state of unhappiness because I fail to meet my own standards. What I do feel is that this incongruence gives me the motivation to live my life with the express purpose of growth and development.

2 September 1996

What seems to me central about this research is that it is about a trainee doing research on trainees. This seems both an asset and a potential confound of the work.

Methodologically, however, it provides a conundrum. Five years of research at the Institute of Psychiatry and then the World Health Organization have drilled into me two things. First, the importance of carefully and thoroughly carried out research to enable reliable results that can be interpreted with confidence and generalised to a larger population. Second, that this type of research can so easily (but not necessarily) miss the essence of a question.

So, the question I have been pondering is: '*how can I, as the subject and investigator, use my dual status to make the research more probing and meaningful?*' I thought about doing some case studies of people who were coping well and coping poorly with training. I keep coming back to the same issue. Which is to use me, to get my own experience into the research. The next question is how to reconcile the subjective and the objective?

A further question is, '*how far do I want to expose myself?*' This might be possible in several ways. At the most personal, I can think about how my personal history, beliefs and feelings about myself, my family and friends led me to clinical psychology training, and how in turn the experience of knowing and being with my year group and my client work have changed and affected me. At another level, I can think at the intellectual level about how this project is informed by and has in turn changed my attitudes to psychology. At yet another level I can provide a sort of history of the milestones of my training, in terms of my personal and professional development. At yet another level, I could allow myself to reflect on the findings in a personal

way, using my experience of training to provide an example of how, for example the second year was more threatening and less controllable than the first. At the moment the diary I am keeping is not clearly conceived, although it is anchored to the research and less, rather than more personal.

I feel that if I am to include a diary it should stand in its own right. It should not be subject to some analysis which would remove the substance (the subjectivity) in the name of objectivity. I guess that is how all research 'subjects' (I use this word deliberately) must feel.

13 September 1996

We are coming up to the end of our second year of clinical training and a research induction week that has forced me to reappraise my view of the course and its research component. Deciding to do clinical training was a long process of which the outcome was inevitable but the route was not. However, at various points there were opportunities to go down different routes, that while tempting, never felt 100 per cent right. There is something that feels right about sitting with another person in distress, who has sought help, working clinically using an approach that is based on some sort of science, experience and clinical intuition. There is something about presenting a conference paper, however carefully designed, implemented, presented and received, that always seems too abstract to me. It's satisfying, but not enough.

So although clinical training was an inevitability, my choice of training course was not. I had been exposed to group experiences (boarding school), competitive and achievement oriented experiences (the Institute of Psychiatry), settings where the work could make a real difference at policy levels (the World Health Organization), client-centred settings (the Samaritans), political settings (MIND) and problem-centred settings (Sail Training). I felt reasonably confident of my research skills and already knew in what way I wanted to continue to develop my research skills and interests. Research was not relevant to my choice of course. What I wanted was an excellent grounding in therapeutic skills, in an environment committed to training and to personal development. I wanted a completely different experience. Of the Southern England courses only the SETRHA course met these criteria, and I more or less decided that was what I wanted to do. Also, the South East Thames course had a reputation for being eclectic in its training, and being genuinely sympathetic to psychodynamic therapy. (What other course would have in its interview '*How has your family made you the person you are?*')

So I applied, and fortunately got a place. I was pleased and looked forward to it enormously. Goodbye to the world of research, for the time being anyway. When I arrived at Salomons, I hoped that I might opt out of the research components so that I could focus on other areas of my training. The Salomons model of research, sharing ideas, talking about how it feels to do research, thinking about one's personal relationship to the research is interesting and personally

constructive, but it doesn't work for me. For me it removes my drive and blunts my edge. It doesn't feel right. I struggle with managing this de-synchrony, but feel that it is manageable, and feel that the course should tolerate and use difference. Sometimes it feels like the course cannot tolerate this difference and forces everyone to go through the hoops for the sake of it. It reminds me of a Jewish tale of the teenage boy who rejects Judaism. His parents consult the rabbi, who agrees to speak to the boy. The rabbi asks the boy *'Do you know the Talmud and the Torah and the other Jewish scriptures?'* The boy says *'no.'* The rabbi responds with *'If you do not know something, how can you reject it. It is impossible to reject something that you do not know. Go away and learn the scriptures, and only then will you know if you want to reject them.'* I guess this is a fairly appropriate model of training.

29 September 1996

I feel that my beliefs and thoughts about research are in a constant state of flux. I met my next supervisor at the Institute of Psychiatry, last week, and was invigorated and motivated by her as a person. For example, when I asked about preparatory reading, she didn't find this an odd question as some of my previous supervisors have. I found this such a positive experience because she is obviously someone who simply is a scientist-practitioner in the sense that her clinical work, research and reading of the research literature all inform one another. She doesn't scowl at research the way many clinicians do, and she doesn't berate the processes of clinical work or the clinical implications of research the way many researchers do. It was an invigorating meeting and made me look forward to my placement. I wonder how my experience will unfold over the six months.

30 September 1996

I have just spoken to Mick on the telephone about the next draft of the paper to be submitted to The British Journal of Clinical Psychology. He advised me to adopt parametric statistics throughout because assumptions about parametric data apply to populations and not to samples, and I should follow the tradition in the literature unless my sample is distinctively different, or I am trying to make a point about population distributions.

This raises two issues for me. First, that there is enormous variability in the opinions expressed by people with considerable experience and expertise, and the opinions can be directly contradictory. I guess, therefore, that if I can argue and defend my position, I can adopt one of several strategies. The other thing that I have noticed is that if I have a lot invested in a belief, I find that when it is challenged, at a cognitive level I immediately reject the challenge out of hand. However, emotionally I find myself processing the feelings of frustration and self-doubt. It is only with time that I find I can integrate a change in my beliefs through the emotional processing. This may be what a person in cognitive therapy feels when they are trying to challenge their beliefs. (Or indeed processing an interpretation in psychotherapy). But it also suggests that emotion is instrumental in change.

1 October 1996

I have just read an interesting article, again in the *American Psychologist*, written by Stanley Schneider, a retiring senior psychologist, called 'Random thoughts on leaving the fray.' The theme of his argument is that the science of psychology needs to be rethought to keep up with real life changes, such as the need to respond to and inform public policy and address the important questions that affect people's lives. But he notes that the tension between science and government is inevitable. You could argue that the tension between research and clinical work is also inevitable. The hopeful point he makes is that this tension can be creative and productive. I guess the task is to use this tension to enable creativity and drive.

4 October 1996

I have my research supervision with Tony later today and I have given him a draft of this diary for his comments. I must confess that as I read through the diary in preparation for today's supervision I feel quite anxious, laying myself open, to scrutiny, ridicule, criticism ...

5 October 1996

I feel a sense of wanting to record what happened in supervision yesterday. It was one of the more useful and productive supervision sessions I have had. We spent most of the time discussing the issues arising out of the diary both for Tony and for me, and how I might use the diary in a presentation to my year group next week and ultimately in my dissertation.

There were a lot of issues that came out of the supervision, and I will try to remember them.

- ▶ One of the more touching parts was Tony choosing to reciprocate and tell me about his experience of professional development, pulling out the issues he felt reverberated with some of my experiences. I felt a lot of respect for his decision to do this, I found it interesting and I was quite struck by some parallels that he described between my experiences and his experiences. However, this is partly because he has a good way of describing something that is akin to my experience to get me to be more in touch with my experience. I also respected his attempt to break down and demystify some transference power dynamics in supervision whilst acknowledging the real power dynamics.
- ▶ One emergent theme was my 'drivenness' and what this was about. I know this is about my father and boarding school, and that whole cauldron. I have been able to use the course to think about where the drivenness comes from and how I want to use it. Perhaps most important, I guess I feel I have reached some sort of conclusion. I want the drivenness, I don't want to lose it, but I want to use it for work that I can believe in. I guess this project in many ways fulfills that aim.
- ▶ Another theme that emerged was of intellect and emotion, and how rather like a large iceberg, I have beneath the surface a largely unseen bulk of emotion. After supervision yesterday, I felt I had engaged emotionally, that I had been in touch with part of my iceberg *and part of Tony's iceberg also*. Intellect and some of my behaviour are a

manifestation of that bulk, but it doesn't reveal or work through it. Even now as I try to commit some of these things to paper (or disk in this new age), I feel like my intellect is engaged and only the top of the iceberg is vaguely informing what I write. It is as if for me some of these issues are raised like dust in a breeze, but it just settles back down when the breeze is removed. I feel like the rest will come out tomorrow in the half-marathon I am running with Halley Then I can work through some emotion.

- ▶ A further theme was one of anger, emerging at various points in the diary. I have some sense of where the anger comes from. For example, humiliation or feeling infantilised evokes disproportionate reactions of anger that may be to do with part of this submerged iceberg. I have the utmost respect for ---- (a friend), who always seems able to maintain a sense of herself and disengage from things that have no relevance to her at a given time. I find it difficult to disengage and I can sit in lectures judging, judging, judging, enthralled, curious, bored ... It is exhausting.
- ▶ Another theme was that of competitiveness. It is ironic that I left the research world partly to escape the quite overt competitiveness. When I first started on the course, I remember thinking how socially skilled and cooperative everyone seemed. However, at the first party, where there was a series of party games, I remember being quite shocked about how overtly competitive people were in the games. In the playing of some party games people acted as if they were trying to get out of a burning aeroplane. Similarly in the placement meetings, I felt like I was a witness to (part of and subject to) a sort of mental violence. Perhaps I am not in touch with my competitiveness; perhaps I believe in Roger's idea of self-actualization in which forces allied to competitiveness can be constructive; perhaps I believe a competitive drive should be used creatively; perhaps I believe we have developed an overlay of cortex that enables us to be different from animals. I guess I believe that we can use our competitiveness constructively on the squash court or to change chaos into conflict which can be settled through discussion rather than destruction. But above all, I believe that for me competitiveness becomes most constructive when I compete against myself. That is to say, when I run against my personal best times, when I try to develop my clinical work to be as effective as I can be given my inexperience, the client and the setting, when I try to produce a paper that is better or as good as one I have written before. I do not deny the existence of competitiveness as a powerful force (after all, all my personal best running times were in races). It is just that I don't believe in the Freudian concept of an id that contains an overwhelming destructive force, or a Machiavellian evil that resides in all of us or a psychobiological force that we can't override. For projects that contain a large part of me, and in which I believe, I will within constraints of time and my other commitments do the best I can.

15 October 1996

I presented selected parts of my research diary to my year group, with the use of some Baxter cartoons to smooth the process. Who was it that said humour was simply an elegant defence? Coming up to the presentation, I felt quite anxious, but when I examined the anxiety I found a block. Nevertheless, I found giving the presentation tremendously cathartic. It was good to feel that I could trust my year group. During the rest of the day several people said they respected my decision to present my research diary and found that they had been touched or moved by it. It seems to me that when I take the risk to speak from my heart or act from my heart, things turn out OK. How others see me is not necessarily how I see myself. It is up to me to make 'me' better understood.

I was also interested to hear everyone else's presentations, and was reminded how much I love research, consuming, commenting on and doing.

24 October 1996

A productive time. The time two packs have been sent out and the penultimate draft of the paper is with Manu, Mick and Tony for their comments.

11 November 1996

I have just returned from an excellent conference 'The Psychology of Awakening,' which attempted to look at the relationships between Cognitive Science, Buddhism and Psychotherapy. The mixture of people was remarkable, bringing together clinical psychologists, research psychologists, psychotherapists, people in therapy, Buddhist teachers and Buddhist monks. Many people that I met and spoke to were extraordinary, having interesting stories to tell about themselves and their work. I think that if I had to say what the main lessons were that I took away from the conference I would have to say:

1. It was great to see that some Buddhist practices can be brought into the work of clinical psychologists in a responsible and effective way. The tremendous work of Jon Kabat-Zinn with people in hospital for medical conditions and John Teasdale's pioneering work with people who have recovered from depression attests to that. This was important to me, giving me the message that I can bring together the personal and professional.
2. It was a real honour to meet John Teasdale, whose work I have respected for so long, and find what an approachable and amicable man he is in person. It was good to meet him at last, and I hope I will have the opportunity to work with him in the future. Although he is clearly identified as an academic of the highest standard, his questions are clinically relevant and his findings oriented to the clinical realm.
3. I also had a sense that the seams between cognition, Buddhism and psychotherapy are rich. I also felt motivated to consider mining those seams at some point in the future through my meditation practice, research practice and clinical practice.

It was also a real thrill to hear some excellent people speak. The nature of the conference made the contributions of different people so markedly different. There were experienced Buddhist practitioners with wisdom to impart (e.g. Christopher Titmus), clinicians who have clinical experience to impart (e.g. Robin Skynner), clinical psychologists who incorporate their Buddhist practice into their work (e.g. John Teasdale and John Welwood), and impressive scientists whose science is in different ways of the highest calibre, but also thought provoking because of their unique perspective (e.g. Guy Claxton and Francisco Varella).

19 November 1996

I feel somewhat split, doing a placement at the Institute of Psychiatry, while developing my interest in Buddhism and training at South Thames. The Institute has many assets: intellectual rigour in the work, a fantastic library with a wealth of journals and books, the opportunity to attend lectures and seminars given by speakers who have made important contributions to mental health care and the opportunity to absorb the atmosphere of innovation. However, there is a downside that I am struggling with, which is how alienating the place feels to me. When I was there doing my Ph.D., I thought it was me. Now, having worked in several other environments I know it is not me. What is more, I don't want it to be me. I guess I have to deal with all the artichoke leaves to get to the heart. In relation to Buddhism, I am currently sitting more or less every morning before going into work, but am finding it hard to maintain a mindful, compassionate stance in an alienating environment. This is not helped by my excursions into some of Maslow's writings. I had great hopes that he might provide some profound insights. He does, in reiterating Roger's ideas that failures in our capacity for growth and creativity underlie much 'averageness,' unhappiness and in more extreme forms, neurosis. His central point is that people have an enormous capacity for growth, whether they are great (e.g. Plato), average (most of us) or suffering with severe and enduring psychological difficulties (most of the people we see in our clinical practice). I also liked his ability to bring spirituality back into the realm of the normal, in the tradition of William James. He argues that we all at various times experience peak experiences, transcending above the humdrum of everyday life. But, and it is a big but, he uses a term 'determined naivete,' which I have to say describes his thought and the process whereby he reaches his conclusions well. His thought is not logical, either in the philosophical or the scientific traditions.

22 November 1996

I have finished the final draft of the first paper from the trainee adaptation project, incorporating everyone's comments and proofreading for content one final time. Now I must submit it, and I am both interested and fearful of the review process. It stands to reason that if (a) research is my way of affirming my self-worth and (b) there is a large part of me in this work, any attack will feel quite personal. Usually I respond well to criticism, and I go away and think hard about it. But of

course, I am curious too. I feel that in spite of some people who use the review process to act out their own issues, usually the right outcome emerges. I will simply have to see.

29 November 1996

I had a heated debate (read fight) with — (a friend) on the way home tonight, which brought into sharp focus some real issues that I am interested in pursuing through my interest in profiles of psychological adaptation and quality of life. At the heart of my own belief system, hence my interest in humanistic psychologists such as Rogers, is the view that people are essentially positive. That is to say that deep within us lies potential for growth, connection, development, creativity and spiritual experience. This is a core part, to my mind, of what it means to be a human being. What is more, this part is what, to me, makes intimate relationships with my closest friends and Halley so precious, what Buber called the I-Thou in a relationship. That is to say, when my consciousness is momentarily filled with say, what — (a friend) is saying and ----'s consciousness is momentarily filled with what I am saying. This does not happen often. But when it does, I feel I am connecting with another person, and then I feel alive. Put more simply, when I feel I can relate to and live a core part of another person and they a core part of me. ---- was describing a problem he was having and his irritation and anger with this person. I could see his anger, but felt, or it seemed to me, that angry actions might exacerbate rather than resolve the problem. I insensitively suggested that he was being dogmatic in his psychoanalytic formulation of the problem. This led into a conversation which was not really a conversation, but rather a situation of — is from Venus and Willem is from Mars. This did not prevent me from becoming bogged down in the quagmires of psychoanalytic conflict, defence and destructive forces and feeling depressed. I feel that psychodynamic concepts have much to offer me in therapy. I have found notions of transference and defence helpful. Psychoanalysis seems not to be a way of understanding and helping people in distress, but a concrete system of diagnosing, classifying and explaining the world. I find psychoanalytic world views depressing. I can live with existentialist positions, I even find they alleviate a sense of being weighed down by eternity (Was it Sartre who said that *'Nothingness lies coiled at the heart of being'*?). But a position of *'our behaviour is determined by our early life experience and has destruction and desire coiled at the heart of it,'* is to me a depressing proposition. It is not congruent with my experience of myself, my experience of sitting, my experience of the important relationships in my life, or my experience of being with people in distress. These experiences are marked by frustrations in development and anger, yes, but not with an 'other-less' desire for self-fulfilling aims, sexual gratification or destructiveness.

11 December 1996

I have just come to the end of month of disasters, made up of a combination of bad luck, poor judgement on my part and plain making mistakes. I wish I could simply rewind the clock a month and try it again with the benefit of hindsight. It has been an amazingly busy month, with few opportunities to stop and think. I have been trying to bridge the gap between the different cultures

of the Institute of Psychiatry and South Thames. My clinical work has been with people who present with complex long standing problems in an environment which does not provide consistent administrative and structural backup. Because of all this, and probably more, I have upset — (a Salomons admin staff person I have the most respect and affection for) through my thoughtlessness and I have created difficulties for myself and others. Probably I have exhausted Halley's well of emotional support. I have ended up using a research supervision in a clumsy way to ask for help in making some order out of the chaos I was feeling. In the midst of all this I put together a job application in which I wrote *'My overarching career goal is to produce work that is thoughtful, ethical, responsible and helpful.'* It is ironic that I wrote this at a time when some of my actions were not thoughtful, ethical, responsible and were distinctly unhelpful to several people. However, with the benefit of hindsight, I think, *'yes that is my overarching goal, but there will be times of pressure and stress when I will be tested.'* Unfortunately, this last month I feel that I have clearly failed to reach the standards I set myself. My core reaction at these times is to batten down the hatches and do all that is asked of me. However, what I must learn to do is to say to colleagues, my superiors, clients, friends and family, *'I am afraid that I am doing as much as I can at the moment, and if I agree to what you are asking (taking on another research collaboration, seeing more clients, going out every night of the week with friends) I will end up doing a lot badly, rather than a few things well. Sorry, I am afraid I must say no.'*

It has been a terrible few weeks and the experience has been unsettling. I have felt variously depressed, hurt, angry, ashamed, furious, alive, helpless and indignant. But I think that it is at times like this that the 'unsettledness,' if that is a word (or what Rogers would call an incongruence between current experience and an understanding of self), leads powerfully to change. I sought help from Halley, from Tony and from my placement supervisor. I would not have done that three years ago. I admitted my mistake and apologised to — (the Salomons admin person) and she seemed to accept my apology. I would not have done that five years ago. I worked with my clients to address how they could take responsibility at times of suicidal crises and explored with them what avenues were open to them at those times. And I have taken a week out of any social life to collect myself and think. As Jon Kabat-Zin so sagely says *'Wherever you go there you are.'*

I wish I could rewind the clock. Knowing that is not possible, I wish I could put right what is wrong. Knowing that is only partly possible, I have to live with what I cannot put right. This feels intolerable at times.

20 December 1996

I have been invited by Emmanuelle to talk about the project to a research interest group at UCL. In fact my name is already on their programme. At first I was simply overwhelmed with nerves, *'What am I going to say?'* *'They are going to rip the work to bits.'* *'They will think it is a*

meaningless bit of work. But the more I think about it, the more I think this might be a real opportunity to make a different presentation. I can try to incorporate a bit of me, explicitly admit I am researching an area that has personal significance, and present the particular and the general.

8 January 1997

The New Year, and the coming year have a certain looming quality, although I know I *should* feel excited. I am on the home run of my clinical psychology training and the future beckons. This is all great, but it does raise the issue of the next step, what, where, when, why? As Fritz Perls used to say '*What will follow, will follow.*' I should listen more to my own experience, I am sure it will work out. After all, it usually has in the past.

We have had a good time two response rate (80 per cent), and we have sent a reminder to the remaining trainees. By the end of January we can begin the time two analyses. I am excited to see what the data will yield. In my heart, I feel I have much to learn from this project over the next six months, but I am not sure how to go about some of these learning tasks. Learning about EQS will be how I have always learned about stats. Sit with the data and the programme and a good text and through trial and error learn how to do it. Then check it out with someone who has mastered the statistical procedure. Mick said to me the other day that he felt I had mastered multiple regression. We joked that this was a bit like having got to base camp, and EQS would be like making an attempt on Everest. Things like presenting the project in an interesting, mindful and helpful way feels daunting, as does knowing how to bring my own experience of training to bear on the project in an interesting, mindful and helpful way.

17 January 1997

I still feel like a month of disasters in December has tainted my whole experience of training. The project was about me taking on something which felt meaningful, which I tried to execute in as responsible and thorough a way as I can. That too feels tainted. I feel like giving up on it. It has become 'spoiled goods.' Yet I have to present it next week at the UCL Clinical Psychology Seminar. My feeling is to do this in an automatic pilot, straight-laced way. I feel apathetic and avoidant about the academic parts of the course and the research project. Although the placement is going well, and I feel that I am developing into a reasonably thoughtful and competent therapist, this does not address the feeling in my heart.

21 January 1997

Having finally started therapy has enabled me to think through some issues that I have raised in this diary. In relation to the last two months it seems that these episodes with the course have made me question my validity as a person. Therapy is helping me think this through. This has been profoundly helpful in making me apportion responsibility in appropriate measure for the events that happened, so that I feel I am only carrying responsibility for the right bits.

28 January 1997

The talk to UCL was thoroughly anxiety provoking and I did far too much preparation. The last two times I was at UCL were (a) as an undergraduate and (b) to attend for an interview for clinical training. To be there giving a presentation to a reasonably large audience was hard enough. The fact that it included lecturers from the time I was an undergraduate and the heads of the clinical course made it even harder. Various people came up to me and to Emmanuelle afterwards and were complimentary both about the work and the presentation, which was good to hear. However, the presentation raised a lot of issues for me.

First, it reminded me of the chasm between the clinical and the academic. I presented the methodology thoroughly, but hoped there would be a thought provoking discussion about the content afterwards. However, all the questions came from academics (who were in the minority), and were all focused on method. I thank Mick for my life, because I could answer some excellent, but difficult questions about the regressions. It felt like the questions were not really questions, but were thinly veiled communications along the lines of *'let's see if I can trip this young whipper snapper up'* and *'let's impress the audience with the cleverness of my questions'* and finally *'as an academic, I can ask questions that the clinicians in the room could not ask, let alone understand.'* One example of several was *'On Table 3, I wondered whether you had left the "-sign" off the social support T values for simplicity'* (There was a footnote on the table explaining the reverse scoring). Questioner zero, Willem one. The point for me, however, was that these sorts of questions do not move the dialogue forward, nor do I see research as an intellectual version of Gladiators.

Second, was how the talk became so important to me. From my therapy this might be a need to find validation through research to repair the lack of validity that I feel. Being aware of this has been useful in another sense, which is for me to explicitly acknowledge my personal participation in the research. I talked about how the project came out of my own difficulties adjusting to beginning clinical psychology training and how the findings explained some of my own reactions to clinical psychology training over the last two years. The whole thing had much more meaning for me, and I have no regrets. Several people commented afterwards that they had appreciated this. I am sure that the academics were thinking *'But where is the control group?'* *'N=1, cannot extrapolate'* etc. But for me this is the aim and value, which does not have to be incompatible with methodological rigour and a reasonable and balanced interpretation of the findings.

6 February 1997

I have obviously started to think about my future employment and have set several trains in motion. But for me there is a real question about applying for academic jobs. Of course, there are not many good academic jobs available and simply getting a good position would be difficult. But lately I have been listening with attention to people talking about their academic jobs, and it has

put me off. One thing I have heard a lot is the need to publish. Although I knew this already, in light of how I have changed over the last two years this produces a real conundrum. If my aim is to produce only work that is meaningful to me, responsible, ethical and useful, then it would be impossible to produce enough published work to advance as an academic. This trainee project has taken an enormous amount of time and psychic energy, and will represent, touch wood, two publications over a period of two to three years. That would land me in the head of department's *office for a motivational interview*, and ultimately out of a job. Perhaps that is a little exaggerated, and with grants and research assistants *the situation would be considerably improved*. However, grants tend to follow political fashions and research fashions. *Many academics have to follow fashion*, often against their better scientific and personal judgement. If I were to follow fashion, then it would make it more difficult to do work that was congruent with my values and career goals.

Another spin on the same argument is whether my goals simply represent a somewhat anal perfectionistic trait. The project is interesting in parts, but does not say that much that is new or interesting. This takes me back to Carl Roger's argument that research is ultimately about a personal advance for the researcher. In that sense, the project has considerable importance for me, but perhaps that is all. Having suggested to a client that he read David Burns' 'Feeling Good,' I went back to it myself to refresh my memory. I was rereading the chapter on perfectionism, which is particularly apposite for this client, and it turned out to be apposite for me too. Anyway, Burns made the argument that his earlier research was rather like this project, in which he invested a lot of time and effort. He said he looked back on it now still feeling a certain pride in it, and awarded himself full marks for the project (10/10). However, he said that in the time it took him to carry out his project, others had completed five or six projects, and even if they could only award themselves 8/10 they would still accrue 40-48 points as compared to his ten. This was his argument against perfectionism. Yes, yes, yes ...but. Why count points and what do points mean (yes, I know, promotion, recognition, research tracks ...)? On my death bed what will 300 as opposed to 50 points **mean**?

I am leaning towards working in a way that can integrate clinical work, research, teaching and supervision.

13 February 1997

The time two data is in, which evokes a feeling of being on the starting line, crouched forward waiting for the starter's gun. It is a nice feeling of apprehension, hope, excitement, adrenalin and focused concentration. The response rate is more than 90 per cent, so I feel I am starting out well, to carry on the running metaphor, with a good basis of training. I spent this morning writing out a step-by-step analysis plan which was a way of harnessing those feelings into a focused structure; to stretch the metaphor to its limit, devising a race plan. Focused, ready to go. I will need all of

this hope, excitement, adrenalin and focus to make it, if I am to master EQS.

5 April 1997

Arrgh. I master something only to find the territory has shifted and my map is out date. How much hair have I pulled out, how many sleepless nights trying to resolve statistical conundrums? Now that I have the time two data, I discover that the nested design requires an analysis strategy that SPSS cannot perform. I wish I had a more analytical and mathematical brain so that I could understand the mathematics of statistics better and mastering another statistical package did not feel like a monumental mountain that I am not interested in climbing. Arrgh.

Slow down, get some perspective here, Willem. My exploration of the data thus far suggests (a) that there are some interesting changes going on over the three years of training and (b) we might be onto something with respect to being able to predict time two psychological adaptation and learning approaches. If I can get my head around the statistics and the software I might be able to tease something quite important out of the data. With the end of training in sight and having been offered a few great jobs, the wind is out of my sails again.

16 April 1997

I have just returned from two days in Edinburgh working with Mick on the analysis of the longitudinal data. We were able to get some good work done. The path analyses of the time two data were fascinating. EQS is so elegant and powerful, enabling interesting questions to be tackled in a way that they could not be tackled before. I think that in a small way there is something interesting in this data about the mediating and moderating relationship of appraisal, coping, social support and psychological adaptation. It seems that only this more complex statistical software is able to tease apart what is going on.

The problem is that it demands a much greater mathematical understanding than other statistics and currently I feel out of my depth. I wonder if I have bitten off more than I can chew in learning and applying modelling in a period of months with only limited guidance.

20 April 1997

A week exactly since I ran the London marathon. The aching muscles have recovered and I am left only with the memories. I once read in a runner's magazine that you learn about the nooks and crannies of your personality in a marathon. I would agree, but would include the months of pre-marathon training. So with the benefit of hindsight and the more acute aches and pains in retreat, what did I learn? That I can work towards distant goals with discipline. During those days in January when the pavements were covered in ice and snow and 13 April seemed a remote future event, I had some inner discipline that made me get changed, warm up, go out and do my training runs. Day in day out, week in week out for twelve weeks. Towards the end I continued through a period of about three weeks when I had come to resent my running because it had taken over my life. But I came through that and managed to work towards the day of the race. On race

day, I went through one of the best days of my life. Over the course of the day I experienced the full spectrum of emotions and sensations, exhilaration, frustration, pain, sadness, compassion, connection, anonymousness and elation. When I saw Halley on Tower Bridge I was overcome with love, when I saw a man with one leg in a roller skate I felt humbled, when I saw some of the costumes I laughed, when I had to settle for a slower time than I had hoped because of the congestion I felt sadness and resignation, when I crossed the finish line I felt nauseous, exhausted but strong. A life and a person crammed into one day. But I lived it and loved it.

I have never seen a research manual, that opens with '*Doing research will teach you about the nooks and crannies of your personality.*' Perhaps they should.

15 May 1997

Just about two months until I have to submit my dissertation, which is not a lot of time. I just met with Sophia who has been enormously helpful with the statistical analysis of the mixed design data. She was able to help me find ways of addressing important questions using statistics that I did not know about until she explained them to me. It is encouraging that developments in statistics are enabling us to ask questions that reflect the complexity of psychological phenomena.

17 May 1997

The envelope with the distinctive red of the British Journal of Clinical Psychology lay in my pigeon hole. I opened it with trembling hands, knowing that the outcome of the review process was important to me. Three reviews, one favourable, one unfavourable and one in between. One recommended publication in the British Journal of Clinical Psychology with minor amendments, one recommended submitting it to a practitioner-oriented journal (Hello, ... this is the British Journal of Clinical Psychology), the other recommended submitting it to the dustbin.

Humility

*I thought my first book not so bad
until the Times engaged a lad
to lacerate it on page nine.
Casting my pearls before benign
obtuseness was a clever trick:
Every ego needs a prick.*

Jan Schreiber

Yes, but it was more than this. The research has many of the limitations that the reviewers pointed out. I do not dispute their comments. However, I was left feeling that within my context as a trainee clinical psychologist, I had done my best and my best simply was not good enough. I was

left feeling several things. First, that if I try to live between the clinicians' and researchers' camps (and the cognitive psychologists' and psychodynamic psychologists' camps for that matter), I will always end up having to avoid the crossfire. The review felt like I had taken an arrow from the research camp squarely in the chest. It made me feel like taking up residence safely in one or the other camps. Doing so would make my life a lot easier. I have the uneasy feeling that I would not be happy in any single camp, and maybe not even good enough to be in either camp. Second, it made me feel that perhaps the integration that I wanted to make between research, clinical work and teaching/supervision, in which the whole is greater than the sum of the parts, might not be a realistic one. I have already had a head of department I spoke to about a job tell me I am unrealistic. Now I have feedback from the research camp that my research is not good enough for them. I remember two senior psychologists once talking me out of my dream over a beer. They argued that you have to give yourself 100 per cent to research to be able to do quality research. Therefore, to aspire to do anything else would be to compromise that standard. I could either do good research or I should do something else 100 per cent. Perhaps they were right. Perhaps, I want to straddle the space between two barges, and be on both barges at the same time, to have my cake and eat it too. Perhaps if I keep on with this I will end up falling into the chasm between the barges with nothing. But it is not enough for me. In a small way, I want to integrate the parts of my journey so far, so that I can give my all. This relates to a final point, which is that the more I put myself into my work, and give it my all, the more it matters.

Of course, these are far from original dilemmas. Many people have encountered exactly the same conundrums and have found their own answers. I too will need to find my answers. I need time to retreat and regroup before finding another way through. Or maybe I should become a sheep farmer on Lundy Island.

Later the same day.

I have spent today incorporating the reviewers' comments into my dissertation. I cannot dispute the majority of the comments, they all seemed like fair comments in and of themselves. I think the dissertation itself will be considerably strengthened by their incorporation. I do think, however, that the review highlights several problems with psychological research generally. In particular, I think that there is not enough recognition that the task of psychological research is an enormously onerous and difficult one, and that we must acknowledge this in doing, evaluating and reading research. We cannot expect research into psychological questions of importance to mirror the physical sciences. Thus, we can only proceed with care in interpreting findings, or we need a paradigm change, the nature and course of which I cannot see.

Wednesday evening, 21 May 1997

Trying to work on my dissertation. I feel distinctively depressed. What had seemed a decent piece of work now seems shabby and meaningless. I feel like escaping to the sheep farm on Lundy after

all. Is there a job-person fit for me? Just at the moment it does not feel like there is, and I feel like bailing out of psychology. To get out of bed in the morning and think that I am doing a physically demanding job with concrete products like wool, a fence repaired and sheep successfully dipped. Yes, that would be real work. Could I feel like that about my work as a psychologist?

29 May 1997

I am trying to work on the parts of the analyses that I have been putting off because they are so difficult, namely the aspects that rely on the nested data and the path analyses. Even resorting to writing a diary entry is a part of the procrastination, although it is also, in part, cathartic.

14 June 1997

The end is in sight. The discussion, working up the sections, proofreading and dotting the 'i's' and crossing 't's' and putting it all together. Yes!!!

25 June 1997

I have a few clear days to work on the discussion, and I am finding it hard going. I suspect that this is because it involves drawing together several large literatures, a large body of findings and my own experience of training into some sort of coherent argument or set of arguments. This involves tremendous focus, space to think and time, all of which I do not currently have. Learning that I am to be a father has completely preoccupied me. My focus is on Halley's pregnancy and my next job and space and time are being squeezed out by this.

12 July 1997

I had my last supervision with Tony yesterday. He gave me some helpful thoughts about the penultimate draft, and I have several days work to incorporate his comments. I have come to a somewhat difficult decision, driven in part by the need to lose two thousand words. If I delete the qualitative content, where I have considered how the work informs my experience of training and how my experience of training informs the work, I can lose almost exactly two thousand words. On the dimension of

subjective / "in touch" / warm / understanding - objective / generalisable / abstract / cool

the work has moved much to the right. At one level this feels like a pity, the integration had been what had been new and exciting to me. At another it feels like something of a sobering reality.

21 September 1997

Thinking back over this project, it has been about learning at all sorts of levels. It is the first piece of research I have conducted that was conceived largely in my head, shaped and moulded by my inner world. It was the first piece of research where I have thought long and hard about what I

wanted to achieve and how I wanted to achieve it. I have not achieved all that I wanted, nor have I achieved it in the way I wanted, but I tried. Hopefully I have created a platform to jump from.

John Teasdale talks about levels of meaning and the more holistic, generic, rich and abstract level of meaning that he calls the 'implicational' level. He argues that this level is directly linked to senses, emotions and experiences. For me this research has been about experiences at an implicational level, which I have only partly been able to express in this diary through largely propositional language. At some level the poem 'Little Gidding' by T.S. Eliot captures, more evocatively than I have been able to, the process of learning, adaptation and growth that I have known at an implicational level. The knowing has been so simple yet complex, so right yet so wrong, so easy yet difficult, so evolving yet timeless, so engrossing yet abstract, so burning yet lovely.

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